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U.S. Department of Agriculture

THE EYE

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WEEKLY POTATO BULLETIN

of the

OFFICE OF HORTICULTURAL & POMOLOGICAL INVESTIGATIONS

APR 2 1921

The material contained herein is not for publication except by permission from the Office of Horticultural and Pomological Investigations.

Washington Notes. April 1, 1921.

Pursuant to our regular custom we again resume the publication of the "Eye". Many things have happened since the last issue of the "Eye" which no doubt would be interesting but we do not propose to publish anything that savors of ancient history.

Potato prices have been ruinously low to the grower throughout the winter season, and the present outlook affords little comfort to those who are still holding a large proportion of their 1920 crop. The only possible relief would be in a failure of the early or truck crop which is hardly probable this late in the season.

Notwithstanding present market conditions, the usual number of inquiries are being received regarding varieties to grow and best cultural practises to use in growing a crop of potatoes.

The weather during March has been unusually mild with the inevitable result that vegetation is from three to four weeks more advanced than normal.

It is with regret that we announce the transfer of Mr. J. W. Wellington of this Office to the staff of the Experiment Station Record. While we wish him every success in his new field of work, we realize how much we shall miss his valuable services both in the Office and in the field.

(Wm. Stuart).

Greeley, Colorado Notes. March 1, 1921.

We have had several days of spring weather and have done some work in the field. A number of the ditches had become excessively large and we have filled them in with a "Fresno" and shall re-ditch them when the soil is in proper condition.

The market has been higher the last few days, potatoes selling for 85 to 90 cents per hundredweight which is somewhat better than they have been for a good many weeks past. From all present indications a pretty fair acreage may be planted in the Greeley District for at the present time the sugar companies are talking $7.00 per ton for beets, and many of the farmers are thinking of putting in potatoes instead of beets.

Yesterday afternoon I attended a meeting of potato growers in the County Agents Office where we examined a number of lots of certified Pearl seed from Wyoming. Good seed is very scarce this year and we are hoping that a quantity of this seed will be purchased by the growers.

March 14, 1921.

Good seed is very scarce and growers are paying all the way from $1.50 to $2.50 per hundredweight. I have had calls from various growers asking me to look over lots of seed which they are intending to buy.

During the past week we have removed the stubble from last year's oats field. The stubble was very heavy and it has been rather difficult to clean it up. We have also disked the ground which was in potatoes last year and expect to seed this to oats within the next two or three weeks if the weather permits.

March 23, 1921.

The weather has continued very favorable for field work and at the present time we are well caught up with everything.

Stuart Sweet was a visitor at the Station yesterday.

(W. C. Edmundson).

Presque Isle, Maine Notes. March 28, 1921.

I arrived here Thursday forenoon March 24 and found that the snow was fast disappearing. The roads are in very good condition.

Judging from what stock we have worked thus far our seed potatoes have kept very well this winter.

Have taken steps to secure some land on which to grow our various strains of potatoes in our seed potato development work.

Irish Cobblers are selling in Presque Isle for $1.00 per barrel and $1.10 at Houlton. Green Mountains are bringing $1.50 per barrel. Very few potatoes are being moved at these prices.

Dr. and Mrs. C. F. Clark arrived on the 28th. Both Dr.Clark and myself have fortunately found living quarters for the season.

(P. M. Lombard).

Jerome, Idaho Notes. March 18, 1921.

The weather conditions still continue favorable for the preparation of the soil. This morning the thermometer registered 25°F and a high wind prevails.

The price of commercial stock potatoes last week was 60 cents per hundred pounds.

Hay is beginning to move though at a low price, - three to six dollars per ton.

There is practically no sale for wheat or oats.

March 22, 1921.

The weather conditions the past few days have been very changeable and we have been unable to accomplish very much as it has rained the greater portion of the time.

(W. G. Randolph).

Notes for the Eye. March 31, 1921.

Our spring planting of experimental potatoes at Arlington Farm, Virginia occurred March 29. The Irish Cobbler is the only variety used this year. The two principal objects of the experiments being the study of the effect of storage temperatures and of time of harvest of the seed on the resulting crop. The temperatures involved are 32°, 36°, and 40°F and have been fairly well maintained during the rest period in the newly constructed refrigeration plant at Arlington Farm. The dates of harvest concerned were August 16, September 4 and September 24, 1920. All material in the above experiments are from one strain of seed, grown in 1920 at Presque Isle, Maine.

There is also included a lot of Irish Cobblers from Charlottetown, Prince Edward Island, for comparison with Maine stock and a lot from Newlands, North Carolina, grown at an elevation of about 3800 feet, and which the grower expects to show value as seed stock.

Weather and soil conditions were much more favorable than last year and forecast a good crop.

(J. W. Wellington).

[illegible]

[illegible]

[illegible]

(M. C. [illegible]).

[illegible]

[illegible]

[illegible]

(J. F. [illegible]).

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T H E E Y E

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WEEKLY POMARC BULLETIN

of the

OFFICE OF HORTICULTURAL & POMOLOGICAL INVESTIGATIONS

APR 9 1921

The material contained herein is not for publication except by permission from the Office of Horticultural and Pomological Investigations.

Presque Isle, Maine Notes. For the Week ending April 2, 1921.

The weather has been very cold. Wednesday several inches of snow fell and Thursday afternoon it rained.

Tuesday, March 29, the soil was mixed and the potato seed was sowed in pots. We have selected and treated seed from the variety collection and the bulk of the orders are treated and are ready to pack for shipment.

The potato market is still dull, price to growers ranging from $1.00 to $1.25 per barrel. There is very little hauling being done.

(P. M. Lombard).

Washington Notes. April 9, 1921.

The weather conditions during the past week have been generally favorable to vegetation. Rather high temperatures prevailed during the early part of the week but on Thursday it grew cooler and was accompanied by light showers in the evening. Friday morning was quite cool since which time the temperature has been gradually rising.

Potatoes planted March 14 are showing good germination.

The best information available indicates that a normal acreage of potatoes will be planted this season.

A recent letter from Superintendent Bergh of the North Central Experimental Farm, Grand Rapids, Minnesota, advises us that several lots of seed potatoes procured for experimental purposes have been seriously injured by frost, presumably in transit. Efforts will be made by the Superintendent to have the growers, from whom these lots were purchased, supply us with a new lot.

Professor Milward advises the Office that he expects to confer with Professor Delwiche this week regarding the land that will be available for the cooperative seed potato development work at the Spooner Branch Station. At the suggestion of Professor Milward a new plan has been adopted this season in securing desirable strains of potatoes for comparative studies as to their relative merits. Instead of the Office buying them from the growers at their own price, as has been the case heretofore, they have been asked to furnish the necessary quantity of seed stock free of

charge with the understanding that in the autumn or following spring they would receive, free of charge, a similar quantity from the best yielding strain tested. This arrangement has met with a very hearty response from the growers. Should this plan prove satisfactory, and we see no reason why it should not, it would seem to offer a most efficient method of placing the superior strains of stock in the hands of interested and practical minded up-to-date growers of seed stock.

The writer plans to leave for Norfolk Sunday evening to take notes on the experimental potatoes planted at the Virginia Truck Experiment Station.

Professor Johnson has recently advised us that the truck growers in the Norfolk district are complaining of serious germination troubles. In some instances only about 50 per cent of the seed pieces have germinated.

(Wm. Stuart).

T H E E Y E

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WEEKLY POTATO BULLETIN

of the

OFFICE OF HORTICULTURAL & POMOLOGICAL INVESTIGATIONS

APR 16 1921

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Greeley, Colorado Notes For the week ending April 9, 1921.

The weather for the past week has been quite warm. However, on Thursday night, April 7, we had a light snowfall. On Friday night the temperature dropped to 12 degrees above zero. On Monday, April 4, we began irrigating the alfalfa. It may have been a little early to irrigate, but the soil was very dry and as there was plenty of seepage water in the ditch at that time I thought it advisable to take advantage of it. It is reported that there is a shortage of snow in the mountains and it is generally believed that we may be short on irrigation water this year.

We finished seeding oats and alfalfa on March 31. Owing to the exceptionally early spring the seedling was done a little earlier than usual.

I am getting a number of strains of Triumph seed potatoes from Nebraska to use in this year's trial plots. Some of the same strains were obtained last year, and it is our intention to make a comparison between the new seed and that grown here last year, both as to earliness and productivity.

The next luncheon of the Denver Club of the Department of Agriculture will be held in Denver on April 11. At that time it is expected that Mr. Lou D. Sweet will be a guest of the Club.

During the past week potatoes have been selling at $1.00 to $1.10 a hundred. See d is very scarce and the demand is still very active. I again inspected a number of lots of see d for growers. Most of the lots were poor, containing considerable disease, run-out stock, and mixture. In each case re-sorting was advised.

(W. C. Edmundson).

Jerome, Idaho Notes. For the week ending April 2, 1921.

The weather conditions the past week have been very unsettled. We have had some rain and snow and there is at present about two inches of snow. This will delay all farming operations for a few days. I do not think it has been cold enough to injure any of the early grain, although some of it is showing through the ground.

We are getting along nicely with the farm work; nearly all of the ground is ready for seeding.

For the week ending April 9, 1921.

The weather conditions the past week have been very unsettled. High winds continuing through the week with rain and snow. Wednesday we had seven inches of snow, and this is most all gone now. The ground is nearly ready for seeding but as we have been unable to get any

instructions as to seeding none of the ground has been seeded.

The condition of the storage water at Jackson Lake still improves.

Thursday the temperature dropped as low as 18 F. which frosted all the early fruit. The orchards visited all seem to be gone.

(W. G. Randolph).

Ames, Iowa Notes. For the week ending April 9, 1921.

Weather remains very much unsettled. On the whole vegetation is from ten days to two weeks ahead of normal. A few days ago it was very warm and the blossom buds on the plum and other fruits were beginning to show color. A little later the temperature dropped to 20°F and very serious damage was done to the fruit buds on nearly all of the tree fruits.

Very few potatoes have been planted as yet. A few early birds got busy and the earliest planting was either seriously injured or damaged by the freeze.

The ground was covered with snow in northern Iowa Saturday. Mr. Rudnick and the writer have been busy the last few days treating potatoes with the hot formaldehyde method. This is by all odds the quickest and most practical method to use and according to the laboratory test conducted by Dr. Melhus, Station Pathologist, it compares very favorably with the corrosive sublimate treatment in efficiency. A carload of Ohios have been treated for the members of the Vegetable Growers' Association. This is a Red River Valley stock and was a very nice grade and quality, except that it contained a great deal of Rhizoctonia.

(A. T. Erwin).

Presque Isle, Maine Notes. For the week ending April 9, 1921.

Continuation of wintry weather, snow Wednesday, rain Friday and cloudy weather in general.

Very little demand for potatoes and but few hauled on account of bad roads. Prices range from 80 cents for Irish Cobblers to $1.00 per barrel for Green Mountains.

Our order of fertilizer was unloaded Friday, and stored in the potato house.

We are still selecting and treating seed stock. Some of the small lots like Hill Selection and 1920 Seedlings are dried off in the sacks in the green house. The seedlings planted about April 1 are germinating very well.

(P. M. Lombard).

New Jersey Notes. April 15, 1921.

Twenty-nine seedlings were planted April 14 on the Theron McCampbell estate, "Ramenessin Farm", Holmdel, New Jersey. The soil was in very good condition and the weather favorable for planting. The seed, which had been shipped in from Presque Isle, Maine was just sprouting in the right stage for use. Thanks to the efficient assistance rendered by Mr. McCampbell's men, the work progressed rapidly.

Information received from one of Mr. McCampbell's tenant farmers, indicated that a larger acreage has been planted in Monmouth County than in 1920. The lesser cost of seed seems to be the influencing factor. Seed is obtained at the present time at about $4.00 a barrel. Farmers who purchased last fall paid in the vicinity of $5.00. Fertilizer of the 4-8-5 grade costs $55.00 a ton. A greater part of the commercial planting is now completed, with prospects favoring a fine crop.

Apples were just coming into full bloom with no indications of frost injury.

(J. W. Wellington).

Washington, D. C. and Norfolk Va. Notes. April 15, 1921.

The writer spent Monday and Tuesday of this week in the Norfolk district. Notes were taken on the germination of the experimental potatoes planted at the Virginia Truck Experiment Station, Diamond Springs, Virginia on Monday. In the storage experiment designed to study the effect of low temperature upon the vigor of the seed stock, those stored at 32 F. showed a germination of 92.5 per cent, those at 36°F., 94.5 per cent, while those at 40°F gave an average of 97.6 per cent. The plants from the 32 F seed stock were slightly less vigorous than those from 36° and 40° storage.

The Norfolk growers are considerably disturbed this season over the decay of a rather large percentage of the seed pieces in the ground. In many fields examined, or noted in passing, the germination ran as low as 20 to 30 per cent. All gradations were noted from these figures to that of a nearly perfect stand. The growers seem inclined to attribute their whole trouble to poor seed stock shipped them from the North. A somewhat cursory study of the situation inclines the writer to believe that the trouble is not wholly due to the failure of the Northern grower to deliver good seed but rather to a combination of factors all of which have tended to lessen the vitality of the seed stock. In the first place most of the seed was procured last fall and held, by the growers till time of planting in very inadequate storage houses. The mildness of the past winter coupled with poorly insulated and ventilated storage houses furnished conditions favorable to germination and also to infection of the tubers by saprophytic and parasitic organisms - the former attacking the tubers through surface injuries

and the latter through invasion, under suitable conditions of healthy tissue. The seed may have, and undoubtedly did in some cases, sustain further injury through heating after being cut. This supposition is all the more probable on account of the high temperature that occasionally prevailed during the planting season. The infestation of the seed pieces in some fields by large numbers of the corn root maggot has undoubtedly been responsible for some failure of the seed pieces to germinate. Decay of the seed piece in many cases seems to be closely associated with the progress of the corn root maggot. Numerous examples may be found, however, in which the seed piece has decayed without the presence of the corn root maggot and when in such cases the seed was planted very shortly after cutting, it is difficult to offer a satisfactory explanation of the real cause of the decay.

Alternately warm and cool weather since planting the crop coupled with a low rainfall have no doubt been contributing factors to the decay of the seed piece.

The consensus opinion of the growers seems to be that the average stand of potatoes in the Norfolk district is between 50 and 60 per cent. Similar conditions are said to obtain on the Eastern Shore of Virginia and Maryland. Germination troubles are also reported from the Carolinas.

A heavy frost Sunday and Monday evenings have served to cause further injury to truck and fruit crops in the vicinity of Washington.

The writer plans to leave Washington this evening (April 15) for the Louisiana, Texas, Oklahoma and Arkansas Experiment Stations to secure notes on the cooperative experimental work being carried on at these points.

Under date of April 11, Professor Milward writes as follows,- "There is a very healthy interest in the distribution of good seed in Wisconsin this year. We will undoubtedly have a normal acreage of potatoes and on account of the donditions in the State, it will be a very fine year to get our superior strains of seed stock in the hands of growers. I am expecting that around one hundred and twenty growers will have the Smith strain of Triumphs under cultivation this year."

(Wm. Stuart).

APR 23 1921

THE EYE

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of the

OFFICE OF HORTICULTURAL & POMOLOGICAL INVESTIGATIONS

APR 2 3 1921

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Greeley, Colorado Notes. For the week ending April 16, 1921.

During the past week we have had .86 of an inch of moisture. Rain began to fall Thursday afternoon, April 14. Friday morning the rain turned to snow, which was accompanied by a very high wind. The storm seems to have been quite general. It is believed that we now have sufficient moisture to germinate the alfalfa. The oats have already germinated.

During the past week a number of growers planted their early potatoes and more early potatoes will be planted as soon as the ground can be worked.

Potatoes are selling for 90 cents to $1.10 a hundred.

(W. C. Edmundson).

Jerome, Idaho Notes. For the week ending April 16, 1921.

The weather the past week has been so unsettled that we have been unable to do any farm work. We have had snow continuing throughout the week accompanied with high winds.

All of the early sown wheat shows fine germination.

Water has been turned in the ditches for irrigation, but will not be delivered to the farmers until some time next week.

(W. G. Randolph).

Presque Isle, Maine Notes. For the week ending April 16, 1921.

We received about two days of sunshine this week, very little rain and plenty of cloudy days. Saturday night it began to snow and this morning about four inches had fallen. We have had no warm rains yet and until we do it is not worth while to attempt to fit any land for planting.

The potato market is nearly dead, only a very few buyers are purchasing stock and prices have dropped to from 80 to 60 cents for Cobblers and $1.00 to 85 cents for Mountains. All orders are filled and stock is purchased at these low prices for speculation.

The seedlings in the greenhouse germinated very good and have made very good growth considering the very cloudy weather we have been having. We have worked over all of the seed stock with the exception of the older seedlings and the seed development stock.

(P. M. Lombard).

Madison, Wisconsin Notes. For the week ending April 16, 1921.

At this writing, potatoes are being received at the Spooner Branch Station for Government Trial Plots. About 50 men will furnish seed stock this year representing the Rural New Yorker, Green Mountain, Triumph, Early Ohio and Irish Cobbler varieties.

During the winter months, unusual attention has been called to the advantage of planting superior strains of seed. The work on the Spooner Station and the Seed Potato Inspection Records show that leading strains of seed are available for distribution. It is proving a very good year to get the good seed distributed.

The corrosive sublimate treatment is being used nearly exclusively in Wisconsin for scab and scurf control. Community associations are purchasing the chemical in 50 pound and 100 pound orders for distribution. There is noticeable improvement in handling and treating seed potatoes.

(J. G. Milward).

Travel Notes. April 19, 1921.

Monday April 18 was spent at the Louisiana Experiment Station, Baton Rouge, taking notes on the behavior of the several lots of northern grown Triumph seed stock. A careful study of the performance of this seed stock as expressed in vigor and freedom from disease of the growing plants showed a marked variation in the amount of mosaic present. This variation ranged from 2.4 to 95.9 per cent. A portion of each lot of seed stock was harvested and a record taken of the weight of No. 1, No. 2, and cull potatoes. While these weights are not as yet available there was every evidence that the yields would vary in approximately the same degree as did the mosaic.

The general appearance and vigor of the crop on the Station grounds is far superior this year to anything heretofore observed at this point. This is partly due to more favorable growing conditions and partly to a better grade of seed stock, with the exception of course of a few inferior strains. An interesting feature of this seasons work was the introduction of small lots of other varieties such as Irish Cobbler, Spaulding No. 4, and Garnet Chili from the Province of New Brunswick, Canada and a lot of Irish Cobblers from Princeton, Minnesota. All of these lots showed good vigor and were practically free from disease. It was rather interesting to note that the Irish Cobbler harvested a rather larger percentage of No. 1 tubers than the Triumph, thus indicating that this variety under Louisiana conditions reaches marketable size at as early a date as the Triumph. The stock dug of both varieties was planted February 12.

Tuesday April 19 was spent at Alexandria in the company of Professor Tiebout, Dr. Edgerton, Mr. Redhead, Assistant State Extension Agent, and Mr. W. H. Humble, Farm Demonstration Agent of Rapides County, inspecting fields planted with Wisconsin certified Triumph seed stock from "Sunset Farms," Nebraska uncertified seed, and "home grown seed." The Sunset Farms seed stock averaged between 70 and 80% mosaic infested plants while the Nebraska uncertified seed averaged about 5% and the home grown seed about 50%.

All fields planted with Nebraska seed stock give promise of making a good crop wherever the cultural conditions were favorable to plant growth.

All told some eight carloads of "Sunset Farm" Triumph seed stock was planted in Louisiana this season and of this amount four carloads were planted in Rapides County. It is needless to say that certified seed from "Sunset Farms" will be given a wide berth by the growers in this section another season.

During the past five weeks the rainfall in this section has been so frequent and so heavy that the land has been too saturated with moisture to permit of a normal and healthy development of the crop. Present indications are that harvesting operations will not become general until May 10 to 15.

It is reported that the potato acreage in Rapides County is between 1800 and 2000 acres. These figures do not, however, represent the total acreage that is normally included in the Alexandria district.

In one field visited this afternoon the same germination trouble was observed as that alluded to in my Norfolk notes. In this particular instance the only difference in the method of handling the seed between this lot and that of another from the same carlot was that in the other lot the seed was dusted with air slaked lime as cut, while the one that gave the poor stand was not so treated before planting it. The failure to germinate was due to the rotting of the seed piece in the ground.

I plan to leave Alexandria for College Station, Texas, Wednesday morning.

(Wm. Stuart).

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OFFICE OF HORTICULTURAL & POMOLOGICAL INVESTIGATIONS

APR 3 0 1921

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Greeley, Colorado Notes. For the week ending April 23, 1921.

The weather for the most part has been good during the past week. Sunday morning, April 24, the weather changed and some rain and snow fell during the day. The precipitation was .18 of an inch.

We began plowing the potato ground Wednesday, April 20.

The Colorado Crop Report estimates the potato acreage for 1921 to be 103 per cent of last year's acreage. This would be about 80,000 acres, while last year there were about 77,629 acres.

The Colorado Crop Report also gives the approximate amount of moisture in the soil as compared with normal for April at about 87 per cent. It further states that there is a marked deficiency in the non-irrigated sections immediately east of the mountains, while extremely good conditions are reported as prevailing in the northwest counties and the extreme southeastern part of the State.

Potatoes have been selling for $1.00 per hundred during the past week.

(W. C. Edmundson).

Jerome, Idaho Notes. For the week ending April 23, 1921.

The weather conditions are about the same as last week. Rain and snow with high wind continuing throughout the week. The temperature running as low as 27°F. We have not started to use irrigation water as yet.

The farmers are selling some wheat at a very low figure, the market price being only 78 cents per bushel. There are also some oats moving at 38 cents per bushel. These prices being far below the cost of production.

There is going to be quite a large acreage of sugar beets planted this year. A large portion of these are being planted now.

(W. G. Randolph).

Madison, Wisconsin Notes. For the week ending April 23, 1921.

Clover is coming through in excellent condition in Wisconsin this spring. The late fall season of 1920 permitted a large percentage of the growers to finish fall plowing. A large amount of this plowed potato land has received a liberal dressing of stable manure.

Wisconsin growers are now applying at least a part of the stable manure to clover seeding one year in advance of planting to potatoes.

The season of 1920 was unusually favorable for Rural New Yorker plantings. The seed trade with the Rural New Yorker variety has been brisk.

Applications for 1921 inspection are already being received at Madison indicating a steady growth in seed potato inspection work.

(J. G. Milward).

Travel Notes. April 25, 1921.

College Station, Texas was visited on Thursday, April 21. As a result of the poor showing made in the two preceding seasons due to unfavorable soil and climatic conditions, no experimental potatoes were planted at the Station this season.

A heavy rain storm delayed my departure from the Station making necessary the taking of a later train for Troup. While enroute to Troup, further heavy showers occurred and much of the cultivated land was observed under water. Residents of this section claimed that frequent heavy rains during the past six weeks had rendered it well nigh impossible to plant or cultivate crops. On arrival at Troup that night it was learned that heavy showers had fallen at that point.

Friday was spent at the Troup Sub-Station taking notes on the germination, general vigor, and freedom from diseases of the Triumph strains of certified seed stock being grown cooperatively with the State Experiment Station. In some areas the heavy rains have flooded the potato plants to such an extent as to cause a rotting of the seed pieces or the drowning out of the plants. Mr. Hotchkiss, the efficient Superintendent of the Troup Sub-Station, seemed considerably exercised over the present condition of the experiment, but in the writer's judgment the condition of the crop is not seriously unfavorable to the securing of fairly satisfactory results provided no further injury to the plants is sustained. While the average height of the plants did not exceed six inches, it was possible even at this stage of their development to secure a fairly good reading on the presence of mosaic disease. In general it was found that the lots showing the greatest percentage of mosaic at Baton Rouge also showed the greatest amount at Troup. There was every indication that the crop had received the best of cultural care and that all it required was favorable weather to produce a satisfactory crop of tubers.

Monday, April 25. was spent at Stillwater, Oklahoma, where it was learned that a frost on April 16 had cut the young potato plants in the experimental plot to the ground. Heavy rains since that date and particularly early in the morning of the 25th had partially washed out some of the plants and had so covered others with soil as to cause them to present a rather sorry appearance. From present indications, it would appear as if most of the plants are going to start new shoots. Owing to the frost injury to the foliage, it was impossible to secure any data upon the presence of mosaic disease in the plants of any strain of seed.

Professor Rolfs very kindly furnished information concerning the character of the seed as received and at date of planting. He reported that the seed stock had arrived in good condition and had kept well in storage. Some rotting of the seed pieces in the ground had been noted.

I am planning to leave Stillwater this evening enroute to Fayetteville, Arkansas.

(Wm. Stuart).

Fayetteville, Arkansas Notes. April 30, 1921.

Wednesday, April 27 was spent at Fayetteville, Arkansas in conference with Professor Cooper and Assistant Horticulturist, C. W. Rapp. The same unfavorable weather conditions were found to have prevailed at Fayetteville as those mentioned in the Stillwater notes. The frost injury to the plants is perhaps best expressed by the following notes from Mr. Rapp which reached the Office during my absence. April 14. "Our Triumphs were again set back by frosts on the nights of the 10th and 11th. A few escaped but many were killed back, some for the second time. The majority of those not killed back are stunted. They continue to come through well and present indications are for a good stand". April 19. "On the nights of April 16 and 17 all of our potatoes were killed to the ground".

While it was not possible on April 27, to determine the stand there is every reason to believe that, even under favorable conditions from now on, it will be far from perfect.

(Wm. Stuart).

MAY 1 1 1921

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OFFICE OF HORTICULTURAL & POMOLOGICAL INVESTIGATIONS

MAY 7 1921

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Greeley, Colorado Notes. For the week ending April 30, 1921.

We have had some very warm days during the past week, but for the most part the weather has been rather cold and windy.

The work of plowing the potato ground was finished on Tuesday, April 26. The ground was in splendid condition for plowing.

Two seedlings, Nos. 38774 and 38769 were received from Jerome, Idaho last week. These two numbers have shown promise here in past years and one row of each will be planted again this year with the new seed.

We expect to start treating our seed potatoes this week.

Very few potatoes are left in the Greeley district. The price is holding steady, however, at $1.00 per hundred.

(W. C. Edmundson).

Jerome, Idaho Notes. For the week ending April 30, 1921.

The weather conditions the past week have been more favorable for farming operations, although high winds continued through the week, drawing quite a bit of moisture from the soil.

We will finish the seeding of grain and also the planting of potatoes next week, if weather conditions continue as favorable as now.

The temperature fell to 24°F. last Sunday night taking all the early fruit that had been left by the previous cold snaps.

(W. G. Randolph).

Presque Isle, Maine Notes. For the week ending April 23, 1921.

The weather for week ending April 23 was a continuation of the week previous, - cool, cloudy and considerable rain.

The potato market is about dead, all seed orders filled and no table stock purchased other than in carlots that have already been sold by the dealers. The older seedlings and the "seed development" stock was treated this week.

Dr. Clark began potting seedlings in the greenhouse. He expects to have a larger number than last year.

For the week ending April 30, 1921.

The weather for this week has been very warm.

I had a conference with the County Agent Monday and have arranged

with him to place with the best potato growers the bulk of our surplus seed stock in hundred pound lots. This material was selected and sacked ready for distribution upon receipt of shipping orders.

Land for the "seed development" work for this year was fitted Friday and Saturday and with good weather Monday we expect to begin planting this stock. The land on Aroostook Farm has dried off rapidly this week and a section has been fitted for planting.

Dr. Clark has about all of the seedlings potted. All of our seed stock has been cut ready for planting, with the exception of several miscellaneous lots.

(P. M. Lombard).

New Jersey Notes. May 4, 1921.

I visited Mr. Theron McCampbell's farms at Holmdel, N. J. last week and found considerable rot. So much so that in many cases he is replanting. The principal trouble seems to be due to Bacillus Vulgaris although there are numerous wire worms present. In addition to this a considerable percentage of the seed pieces show spindling sprouts.

I visited Freehold, N. J. Monday, May 2 and found the same condition to exist there. The amount of rot varying from 5-10 per cent in some fields, to 50-60 per cent in others. The trouble cannot be traced to the seed since seed from various sources rot alike. It is, no doubt, brought about by the soil and weather conditions of the past month.

(W. H. Martin).

Madison, Wisconsin Notes. For the week ending April 30, 1921.

The recent cold weather has been beneficial rather than injurious to the potato industry.

Samples of seed potatoes have been received at this office during the week showing conspicuous development of storage rot. These rots as a rule seem to have developed over bruises resulting from sorting. The weather during the late fall and early winter season was unusually mild and this condition has caused a very large amount of bin rot this season.

Special attention therefore will be called this season to more careful sorting and handling of inspected seed potatoes. There is danger that stock showing a good field record and a good bin inspection may deteriorate in value during storage or in transit.

(J. G. Milward).

Washington Notes. Friday, May 6, 1921.

The weather thus far in May has been cold, cloudy or rainy practically every day. The potato experimental field at Arlington Farm planted with seed stored at 32°, 36° and 40°F. shows some interesting variations between plants grown from seed removed from the storage room ten days in advance of planting and allowed to warm up and those removed from the storage rooms and planted at once. The interesting feature of this experiment is that the warmed-up seed gave a practically perfect germination, and on May 2 were from 3 to 4 inches high while the cold planted seed plots showed only an occasional plant. Little if any difference could be noted on the date mentioned in the size of the plants of the warmed seed from the 32°, 36° and 40° F. rooms. In my own garden there is a distinctly observable difference between the size of the plants from 32° and 40°F. stored tubers, those from the higher temperature room being considerably larger.

The writer spent Tuesday at Mr. L. M. Marble's farm, Canton, Pa. where notes were taken on the comparative keeping qualities of Gold Coin potatoes stored in a specially well-constructed natural storage house and a similar lot stored at Arlington Farm in a 40°F. cold storage room. Those in Mr. Marble's storage house were found to be in first class condition with sprouts just beginning to develop. Those at Arlington Farm examined the day previous were found to be absolutely dormant but were relatively no firmer than the Canton lot. A 60 pound sample lot was shipped from each point on May 3 to Presque Isle, Maine to be grown in contiguous plots for the purpose of determining whether seed potatoes stored in a well aerated natural storage cellar will produce more vigorous plants than those stored in an un-aerated artificial storage room.

Mr. Wellington plans to leave Washington Saturday evening for Spooner, Wisconsin and Grand Rapids, Minnesota, in order to treat and prepare the various lots of seed potatoes intended for comparative study in the cooperative seed potato development work conducted in these two states.

A Departmental Art exhibit is being held in the City Library this week and next. The potato work of the Department is represented by large transparencies illustrating different potato field cultural practises. A number of water color paintings of sample potato tubers are also on display. A short lecture program has been arranged for each evening. The writer is expected to give a short talk on the potato next Monday evening.

(Wm. Stuart).

MAY 1 1921

THE EYE

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WEEKLY POTATO BULLETIN

of the

OFFICE OF HORTICULTURAL & POMOLOGICAL INVESTIGATIONS

MAY 1 4 1921

The material contained herein is not for publication except by permission from the Office of Horticultural and Pomological Investigations.

Greeley, Colorado. For the week ending May 7, 1921.

On Saturday May 7, we had a good rain; .55 of an inch of moisture was recorded. This was sufficient to be of great benefit to crops in general, especially young beets and young alfalfa. The weather of the past week was for the most part cool, though quite warm in the middle of the day.

Most of the past week was spent in treating our seed potatoes with bichloride of mercury. We have very little treating yet to do. Today we harrowed the ground that is to be planted to potatoes, in order to conserve the moisture and to put the ground in better condition for planting.

It is thought that there will be an increase in the Greeley district of about 50 per cent over last year's acreage. This is the opinion expressed by both growers and dealers.

(W. C. Edmundson).

Jerome, Idaho. For the week ending May 7, 1921.

The weather conditions the past week have been very favorable to growing crops. All seeding, including the planting of potatoes will be finished next week.

We began to use irrigation water this week and have all of the alfalfa ground well watered. We were allowed an extra half foot of water as there does not seem to be many using water at present.

The price quoted on No. 1 potatoes yesterday was 75¢ per cwt. Certified seed stock is selling from $2.00 to $3.00 per cwt.

Owing to the high winds we have had this spring, quite a few of the farmers who have planted sugar beets are planning to irrigate up the crop as they judge the soil too dry to insure good germination.

(W. G. Randolph).

Ames, Iowa. For the week ending May 7, 1921.

Mr. Rudnick and the writer spent the greater portion of the past week at Osage, Iowa, on the potato work. The planting is now completed but has been delayed somewhat due to rains interferring with the progress of the work.

The potato work this season will cover three phases; first, place effect on seed. This will include lots from the irrigated and dry section of western Nebraska, Minnesota, Wisconsin and northern Iowa, which consists of Burals, Ohios, Green Mountains and Cobblers. Second, fertilizer experiments. Third, spraying for the control of hopper burn or tip burn which ever you choose to call it. The lots arrived in good condition.

Seed stock is very cheap from local growers at the present time running from 40 to 50 cents a bushel and indications now are that there will be at least a normal acreage in northern Iowa. The excessive freight rate will probably prove of some advantage to the local grower. As an example of the increase the former rate from Mitchell County which is in the northern tier of counties to points in central Iowa was 10 cents a bushel as against 24 cents under the new rate.

(A. T. Erwin).

Presque Isle, Maine. For the week ending May 7, 1921.

The weather for the past week has been fair and quite warm.

The farmers in this section have nearly completed the seeding of land to oats and wheat.

Two and one-half acres of the Savage field have been planted with the several strains of seed potatoes intended for comparative study in the seed development work. For the most part barrel lots were planted.

On Aroostook Farm about 4/5 of the 10 acres intended for use in experimental potato work this season has been harrowed and the rocks removed. Seed intended for the cooperative fertilizer experiment with the Office of Soil Fertility Investigations and for the spraying experiment with the Bureau of Chemistry has been cut.

If conditions are favorable will begin planting on Monday, May 16.

(P. M. Lombard).

Spooner, Wisconsin. May 10, 1921.

I arrived in Spooner, Wisconsin, early Monday morning, May 9. Spring is just making its appearance here as evidenced by the breaking leaf buds on the trees.

There are approximately 50 new lots of potatoes for the trial plots, twenty of the Triumph variety, and the remainder divided between Rural, Green Mountain, Irish Cobbler and Early Ohio. The Prince Edward Island Irish Cobblers and Green Mountains have arrived in good condition. Two boxes of seedlings from our Presque Isle, Maine station are also at hand. The general run of the seed stock is in good condition, perhaps a little more advanced than last year - but in no way injured. Monday was utilized in separating into varieties and in properly tagging the new lots. Seed treatment was begun Tuesday morning and advanced rapidly because of the capacious treating tanks.

On Tuesday afternoon a seed treating demonstration was held at the station. About twenty-five interested growers from Washburn County

were present. Part of the time was spent in actual demonstration and the rest given up to an informal lecture or rather discussion by Prof. Milward, on the reasons for treating potatoes. Mr. Ricks, the president of the Wisconsin Potato Growers Association was present as an interested observer.

We will probably finish treating by Friday, making possible my departure for Grand Rapids, Minnesota on that evening.

(J. W. Wellington).

Washington Notes. May 13, 1921.

The first three days of this week were fair,-Wednesday and Thursday were rainy and cold while today is cloudy and threatening with rising temperature.

The Department's art exhibit in the Public Library is receiving favorable notice in the newspapers but is not being as well attended as the character of the display warrants.

The writer gave a short talk on potatoes at the Library last Monday evening.

Early planted potatoes in this section are now showing flower buds.

The experimental plantings at Arlington Farm are coming along nicely.

Among the publications recently received are two that are of especial interest to the potato investigator. The first is bulletin 176 of the Utah Station entitled "Potato improvement by hill selection". The author of this bulletin, George Stewart - claims to have a selection of the variety Majestic - a member of the Rural group that is more productive than the mother-plant and that transmits this quality to its resultant tubers.

The author's results show an average annual increase in yield of the selected over unselected stock for the six-year period (1915-1920) of 60.9 per cent.

The other publication referred to is entitled "The Influence of size and character of seed on the yield of potatoes", by Dr. R. N. Salaman. This is a reprint from the Journal of the Ministry of Agriculture of Great Britain, Vol. 28, No. 1, April 1921. The experiment on which data presented are based consist in a comparative test of whole tubers ranging from 0.44 oz. to 6 oz. in weight. After deducting the weight of seed used from the crop produced, the results showed

that the 2 oz. whole tubers gave the largest net yield followed by the 6 oz. tuber. The 4 oz. tubers produced the third largest yield. The comparative results are as follows:-

0.44	oz.	seed	piece	gave	a	net	yield	of	5.53	tons	per	acre.
1.33	"	"	"	"	"	"	"	"	8.49	"	"	"
2.0	"	"	"	"	"	"	"	"	13.0	"	"	"
2.66	"	"	"	"	"	"	"	"	9.7	"	"	"
4.0	"	"	"	"	"	"	"	"	10.5	"	"	"
5.33	"	"	"	"	"	"	"	"	9.1	"	"	"
5.66	"	"	"	"	"	"	"	"	9.6	"	"	"
6.0	"	"	"	"	"	"	"	"	12.2	"	"	"

The paper is accompanied by natural size photographic illustrations of the eight classes of tubers. Much additional data than that given here is included in the text.

(Wm. Stuart).

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WEEKLY POTATO BULLETIN

of the

OFFICE OF HORTICULTURAL & POMOLOGICAL INVESTIGATIONS

MAY 21 1921

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Greeley, Colorado. For the week ending May 14, 1921.

We have had a number of cool, cloudy days during the past week, accompanied by some light showers.

It is expected that No. 2 ditch water will be turned into the ditch today. There are many conflicting reports as to the quantity of water that will be available for irrigation this year.

Treatment of the seed potatoes was finished last week with the exception of a few lots that have been received during the past few days. The seed in the storage cellar came through the winter in very good condition.

The class in agriculture in the Greeley High School visited the Station today for laboratory exercises in identification of varieties. All the groups were studied and the boys made a creditable showing in their identification.

(W. C. Edmundson).

Jerome, Idaho. For the week ending May 14, 1921.

The weather conditions for the past week have been very favorable to growing crops. Some ice was noted Wednesday morning but no particular damage was caused by the freeze. We have finished the grain seeding and expect to plant the potatoes this afternoon.

The irrigation of grain will begin the first of the week. Compared with other seasons this is nearly a month earlier than the usual date of irrigation. The earliness of the present use of water is due to the loss of soil moisture as a result of high winds.

All early sown grain shows fine progress. Hay has made a good growth during the past two weeks.

(W. G. Randolph).

Presque Isle, Maine. For the week ending May 14, 1921.

The weather for the past week has been partly cloudy with showers Monday, Tuesday and Saturday. However, field work was not halted until Saturday afternoon.

We began planting Monday morning and finished all the hand work Saturday noon. In the afternoon the maturity experiment with the Irish Cobbler variety was planted.

We ought to finish early next week as we have only 1/3 of an acre to plant in cooperation with the Office of Soil Fertility Investigations (Fertilizer Experiment with four seedlings), and two

acres for Dr. F. C. Cook, in cooperation with the Bureau of Chemistry, also our experiment on the effect of temperature on the vitality and productivity of seed stock, the older seedlings and miscellaneous material.

B. E. Brown of the Office of Soil Fertility expects to be in Maine the week beginning May 16.

About 70 one hundred pound lots of seed potatoes from our seed development work have been placed through the County Agent, Mr. Philbrick, in the hands of some of the best seed potato growers. Varieties placed were for the most part Irish Cobbler and Green Mountains, although 2000 lbs. of Rural New Yorker #2 and Russet Rurals, and several hundred pounds of Spaulding Rose have, by request, been placed. It is proposed, in so far as practical, to visit and examine fields where this stock is being grown this year. Whenever it was possible, several lots of a given strain were placed in the same town in order that local variations in soil fertilizer and cultural operations might be taken into consideration in judging the merits of the strain for the locality. Mr. Philbrick will examine those lots placed in the more distant towns and it is proposed to draw up a tentative outline to be used in taking notes.

(P. M. Lombard).

Grand Rapids, Minnesota. May 16, 1921.

Real winter weather greeted the writer on his arrival in Grand Rapids. Saturday, May 14 was so cold that the potatoes could not be safely removed from the cellar. Saturday evening two or more inches of snow fell and the thermometer dropped well below freezing point - enough so to kill back rhubarb. Today the weather has been splendid and considerable progress made in treating and cutting the seed potatoes. The field is in excellent condition having been plowed in the fall and spring and thoroughly fitted and with any sort of favorable weather conditions, will certainly grow a good crop of potatoes.

I expect to finish here this week returning to Spooner, Wisconsin, for planting the following week.

(J. W. Wellington).

Stillwater, Oklahoma. May 10, 1921.

"We had another light frost May 2, which did some damage especially in the low spots. A good rain fell last night (May 9) and the weather is now warm. The potatoes have grown wonderfully in the past week and now look almost respectable. Some of the tardy ones continue to push through."

(Prof. C. W. Rapp).

Spooner, Wisconsin. May 9, 1921.

Our season's potato work begins this week with the arrival of Mr. Wellington at the Spooner Branch Station. We have assembled 50 lots of seed from Wisconsin growers for our U. S. Dept. Cooperative trial fields. Corrossive sublimate treatment of the seed will start today at Spooner.

Seed stock of the late varieties should be in good condition to plant about May 25. This date is especially desirable for the northern counties.

We consider it advisable to with-hold the planting of the Triumph plots until June 15.

Notes on percentages of mosaic in the Triumph plots will be very interesting this summer, in-as-much as several lots originally came from the J. W. Smith strain. This foundation seed was disseminated two years ago into several of the counties where the Triumph variety is important. Obviously the chances of mosaic infection has varied widely and we will watch these Triumph plots with unusual interest.

(J. G. Milward).

Madison, Wisconsin. May 17, 1921.

The weather in Wisconsin continues cool and very satisfactory for all crops except fruit.

I have observed a larger number of our growers planting on an earlier date than usual. In Northwestern Wisconsin some of the growers were planting a part of their acreage to Early Ohios or Irish Cobblers around May 15. This stock will be sold mainly to local markets in the late summer.

In many sections fall plowing is being replowed at this date for either corn or potatoes. A dressing of stable manure has been applied as a rule preceding plowing.

Continued reports indicate a full acreage of potatoes in Wisconsin (around 300,000 acres).

(J. G. Milward).

Norfolk Notes. May 17, 1921.

Monday, May 16 was devoted to the taking of notes at the Virginia Truck Experiment Station on the effect of temperature upon the vitality of seed potatoes subjected to a 32°, 36° and 40°F. storage temperature, and of the vigor of mature and immature seed stock. The differences in size of plants between the 32°, 36° and 40°F. stored tubers which were apparent on April 11, were not so observable

on May 16. In fact the present size of the 32°F. plants is almost equal to the 36° and 40°F. ones. There is little if any choice between the plots planted with mature and immature seed stock. The plants from the Prince Edward Island Irish Cobbler seed are equal in size to the best of those grown from Maine seed stock and are freer from Mosaic infection than any of the others. By actual count the Prince Edward Island stock only showed three mild mosaic plants out of a total of 383 or less than 0.8 of a per cent.

The Norfolk Ledger-Despatch for May 16 recorded the shipment of a barrel of Irish Cobbler potatoes of the present season's crop to the New York market on May 14. This is claimed to be the earliest shipment on record. In 1907 a shipment was made on May 16.

The writer was informed that some of the Norfolk and Cape Charles growers were planning to begin harvesting their crop this week. Owing to a poor stand generally throughout the Norfolk and Eastern Shore districts the crop in those two localities will not be up to normal in volume.

(Wm. Stuart).

Washington Notes. May 20, 1921.

The Arlington Farm experiment on the effect of temperature upon the vitality of seed stock presents a somewhat different appearance this week than when previously reported in the "Eye". Since the last report the percentage of germination in the plots planted with seed taken directly from the cold storage rooms has greatly improved, in fact it is now almost equal to that from the seed allowed to warm up before planting it. The difference in size of plants is still quite marked, however. It is believed that this difference in size will be more or less evened up before the plants reach their full development. Prince Edward Island stock is making quite as good a showing as the best lots of Maine grown seed.

A letter from Mr. McCampbell of Holmdel, N. J. this week advises us that the potato situation in Monmouth County is not very promising, owing to poor stands. He is of the opinion that the total potato production of Monmouth County will be quite materially below normal.

(Wm. Stuart).

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WEEKLY POTATO BULLETIN

of the

OFFICE OF HORTICULTURAL & POMOLOGICAL INVESTIGATIONS

MAY 2 8 1921

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Greeley, Colorado. For the week ending May 21, 1921.

During the past week we have had 0.69 of an inch of rain. For the most part the weather has been cool.

We have been cutting potatoes and expect to start planting operations within the next few days. The seedlings were planted May 21. The potato ground has been disked and harrowed since the rain. It is being floated today and this operation will put it in splendid condition for planting. There is sufficient moisture at this time to insure good germination.

The oats and the old and young alfalfa are making excellent growth.

(W. C. Edmundson).

Jerome, Idaho. For the week ending May 21, 1921.

The weather conditions for the past week have been very favorable to growing crops. We have had continued rain throughout the week and at this date 1 3/4 inches of water has fallen with the showers still continuing. This will save one irrigation at least, as all were beginning to water their wheat.

All crops are looking extra well. A much larger acreage of potatoes is being planted here this season. Some are planting as much as 60 acres. Most of the larger acreages are being planted on a contract price of 90 cents per cwt. f.o.b. Jerome.

(W. G. Randolph).

Travel Notes - Louisiana. May 23, 1921.

On Saturday, May 23, two experimental plots were harvested on the Station grounds at Baton Rouge. In respect to type, quality, yields and general uniformity, the crop is superior to any I have inspected during the course of the experiments in Louisiana.

As in previous years there are outstanding superior strains and several of the strains that have given satisfaction in previous years will show to advantage again this season.

Reports have been received here showing excessive rains during the growing season in several of the commercial potato growing regions. Baton Rouge has had an unusual favorable season.

On Monday, May 23, Professor Tiebout called a meeting of the farmers to inspect the trial plots. Those in attendance showed a very keen interest in the work and were also interested in a discussion of the progress of seed potato inspection.

(J. G. Milward).

Presque Isle, Maine. For the week ending May 21, 1921.

The weather for the past week has been rather cold and disagreeable with considerable rain.

Mr. B. E. Brown of the Office of Soil Fertility Investigations, arrived Monday morning. He finished planning his experimental work Thursday and left for Washington the same night.

The bulk of the farmers have finished planting. Because of weather conditions, we did not finish planting on Aroostook State Farm this week.

(P. M. Lombard).

Grand Rapids, Minnesota. For the week ending May 21, 1921.

The experimental potatoes were planted in Grand Rapids on Wednesday, May 18. Four row plots were used in every case where sufficient material was available and despite unfortunate losses of seed stock from freezing during the winter, there is still sufficient remaining material to make a good showing. The writer owes thanks to Mr. Bergh and his associates for the generous assistance rendered during his stay.

Spooner, Wisconsin.

The Rural and Mountain stock was cut on May 20 and 21, and planted May 23. This year Prof. Milward has arranged to grow all potatoes at Spooner on the check system, so that the quack grass menace may be better controlled. This plan means considerably less hills per plot but the writer was assured that the yield per acre would not be materially reduced. On May 23, the increase stock of the late varieties was planted together with type study and seedling material.

Tuesday afternoon was utilized in checking up the planting and in making arrangements for the early varieties which are to be held in storage until June 15 before planting. There is such a wealth of strains, that one had to figure closely to arrange for all of them.

The writer left Spooner Tuesday evening - arriving in Washington, Thursday, May 26.

It is with real regret that I close my last contribution to the Eye - realizing that it means separation from an enjoyable work and more than this - the breaking of association with a loyal and sincere group of co-workers and friends.

(J. W. Wellington).

Washington Notes. Thursday, May [illegible] 1921.

Sunday and Monday of this week were real summer days, but on Monday evening the temperature took a sudden drop of thirty degrees. Tuesday was cool and cloudy, followed by a heavy rain early Wednesday morning with rising temperature in the afternoon.

In a letter received from Professor Johnson on Tuesday, it was intimated that several of the Norfolk growers were desirous of taking steps toward contracting for 20,000 bbls. of high grade Irish Cobbler seed stock. It is proposed to make a careful field inspection of the growing stock before contracting for the seed stock.

A letter was also received on Tuesday from the Hon. Wilfrid Boulter, Asst. Deputy Minister of Agriculture for Prince Edward Island, advising us that he was planning to visit the potato growing districts of Virginia, Maryland, New Jersey, Long Island, etc. during the latter part of June, in behalf of the P. E. I. Potato Growers Association of which he is the secretary.

The carlot shipments of potatoes on May 24 as given in the daily market report of the 25th, shows that the Norfolk section moved 17 carloads on that date, and the Eastern Shore of Virginia 7 carloads of new potatoes. On the same day South Carolina shipped 107 cars, North Carolina 45, Louisiana 28, Texas 27, Alabama 14, and Florida and Georgia 3 and 5 respectively. This heavy movement of new stock is probably responsible for the lowering price noted during the past week. Charleston and Meggets, S. C., f.o.b. sales on Tuesday were from $4.25 to $4.50 per bbl. for U. S. grade No. 1 and $2.50 for U. S. grade No. 2.

The writer plans to spend Friday and Saturday in Monmouth County, New Jersey, where germination troubles are claimed to be responsible for poor stands in many of the fields. Notes will be taken on the seedling potatoes planted on Ramanessin Farm, Holmdel, N. J.

(Wm. Stuart).

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WEEKLY POTATO BULLETIN

of the

OFFICE OF HORTICULTURAL & POMOLOGICAL INVESTIGATIONS

JUN 4 1921

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Greeley, Colorado. For the week ending May 28, 1921.

We had rain Monday, Tuesday, Wednesday and Thursday of this week; a total of 0.76 of an inch fell during the four days. On Wednesday, May 25, this section was visited by a severe hail storm which damaged the alfalfa and oats. Other sections have had the same experience and some farmers feel that the alfalfa has been so badly damaged as to make cutting necessary.

Potato planting began on the 27th and it is expected that the task will be completed by the latter part of next week. The soil is in especially fine condition for planting at this time, and it is thought that there is sufficient moisture to insure good germination. Most of the early-planted potatoes of this section have germinated and growers have obtained a good stand. Some report, however, that they have had trouble with seed rotting in the ground. Many growers have started planting their late crop of potatoes at this time.

(W. C. Edmundson).

Jerome, Idaho. For the week ending May 28, 1921.

The weather the past week has been quite favorable to growing crops although a little cool. A rainfall of a little over two inches during the past two weeks has caused us to discontinue irrigation for the time being. The precipitation of the past two weeks shows an increase of four times that of any recorded after May 1, for the past ten years.

U. S. grade No. 1 potatoes are selling locally at 60 to 75 cents per hundredweight, while on distant markets they are bringing $1.75 per hundred pounds.

Wheat advanced to 96 cents per bushel on May 27. The hay market is stronger with some sales at $11.00 per ton f.o.b. Jerome.

(W. G. Randolph).

Travel Notes. May 28, 1921.

The potato plots on the Troup Station farm in Texas are beginning to ripen. The development of the mosaic disease on the plots was, of course, carefully noted and will be compared with earlier readings.

Sun scald was very conspicuous on the plots and was present in varying degrees of severity. The condition does not seem comparable entirely to the "tip burn" so common in northern fields. Mr. Hotchkiss the superintendent, reports there has been no aphis or leaf hoppers present. The common potato beetle has done a slight amount of damage and we found the familiar squash bug working on the plants also.

Mr. Hotchkiss reports the season as unusually unfavorable. The rainfall was not evenly distributed. Two bad storms occurred at critical times, - more than two inches of rain falling in 30 minutes. These storms beat and washed the plots and drowned out the vines in low areas.

The experiment gives excellent promise, however, especially in mosaic readings and vine growth, and with careful harvesting of each row separately, - satisfactory yield records will be secured.

(J. G. Milward).

Presque Isle, Maine. For the week ending May 28, 1921.

The weather for the past week has been fair and warm.

Early planted potatoes are beginning to break through the ground. The seed development plat on the Savage field was cultivated Thursday and horsehoed Friday. We began cultivating and horsehoeing on Aroostook Farm Friday and Saturday.

Practically all potatoes are being hauled to the starch factories at 35 cents per barrel.

(P. M. Lombard).

New Jersey Notes. June 3, 1921.

Friday and Saturday of last week were spent in New Jersey. The points visited being Holmdel, Perrineville and Hightstown. At Holmdel notes were taken on the seedling potatoes planted on Ramanessin Farm. Of the 30 seedlings under trial there were only four showing what might be considered poor germination. Many of them had a 100 per cent stand. Flea beetle foliage injury was quite severe in the experimental plat and commercial fields alike.

The condition of the potato crop in New Jersey is generally unsatisfactory on account of poor stands. Many of the growers in the vicinity of Holmdel have re-planted at least a portion of their acreage. As might be expected there are all gradations of field stands ranging from 50 to about 97 per cent. The cause of the poor germination of the seed pieces this season, as analyzed by Professor Martin of the New Jersey Experiment Station, has bee n presented in a previous issue of the Eye. Wireworm injury and decay of the seed pieces in the ground, due to bacterial or fungous infection, seem to be the primary causes of the trouble. Better stands were noted in practically every instance where the Irish Cobbler was planted than where the American Giant was used. Home grown seed also showed better germination than from northern sources.

On Saturday Mr. & Mrs. McCampbell and the writer motored to the residence of D. Raeter of Perrineville where we met Dr. Lipman and Profs. Blair and Martin of the New Jersey Station, and together we inspected a portion of the 300 acres of potatoes that Mr. Raeter and his five stalwart sons are growing on two farms embracing 510 acres in all. The varieties grown are American Giant and Irish Cobbler with the acreage largely in favor of the former. Some good, medium, and rather poor stands were noted in the several fields examined. Eastern Shore of Virginia seed of both varieties mentioned were giving a good account of themselves.

At Hightstown, I had an opportunity to inspect the Triangle fertilizer experiment cooperatively conducted by the New Jersey Experiment Station and the Office of Soil Fertility Investigations of this Bureau. Marked differences in the growth and appearance of the plants in the several plats could be observed. A drive from this point to New Brunswick completed the trip.

(Wm. Stuart).

Washington Notes. June 3, 1921.

Little of interest has occurred in the Office since our last communication. The weather has been favorable to growing crops, though the evenings are somewhat cool.

The price of new potatoes has steadily declined. May 31 quotations on U. S. grade No. 1 Irish Cobblers in cloth top stave barrels f.o.b. Onley, Va., was $4.00 per barrel. The demand was reported as moderate.

The carlot movement May 31, equalled 391 cars. Of this number 209 were new potatoes.

(Wm. Stuart).

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WEEKLY POTATO BULLETIN

of the

OFFICE OF HORTICULTURAL & POMOLOGICAL INVESTIGATIONS

JUN 11 1921

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Greeley, Colorado. For the week ending June 4, 1921.

During the past week rain fell almost every day. The total precipitation was 2.47 inches, of which 1.15 inches fell Friday night, June 3, and 0.71 of an inch on June 4. The rainfall has been general throughout the State.

The work of planting potatoes was finished Thursday evening, June 2. The soil was in excellent condition for planting.

Owing to the cool weather the alfalfa has made very little growth of late and it looks very much as if the first cutting of hay would be short.

It is thought that about half of the late crop of potatoes has been planted in the Greeley district.

(W. C. Edmundson).

Presque Isle, Maine. For the week ending June 4, 1921.

The weather for the past week has for the most part been cold with frosts about every night. We had a heavy rain Tuesday night but the ground is still quite dry and the hay crop in this section will be very light if we fail to get considerable moisture within the next ten days.

A few reports of seed rotting have been received, and one complaint of worms working in the seed, which upon investigation proved to be a bad infestation of wire worms.

All potato plats on Aroostook Farm have been cultivated once, and we have been over the seed development plat on the Savage Field twice.

Mr. Bacheldor from the Office of Entomology arrived in town yesterday.

(P. M. Lombard).

Madison, Wisconsin. For the week ending June 4, 1921.

Heavy rains have fallen during the last two weeks. Fields should be in excellent condition for planting of the main late and early crop.

Seed potato inspection applications are now being received at the Horticultural Department. This work will be concentrated largely this year in certain counties in upper Wisconsin. This is especially true of the Triumph variety where we expect inferior strains to be supplanted by better grades of inspected seed.

The writer will leave for Spooner on June 13. The plots of early varieties will be planted at Spooner on June 14 and 15.

(J. G. Milward).

Grand Rapids, Minnesota. June 7, 1921.

The weather has been rather unfavorable to the potato crop since Mr. Wellington left. It has been cold and wet. A light frost occurred the morning of June 3 injuring the corn and other tender crops in spots. 3.75 inches of rain fell the past twenty days. 2.45 inches fell this morning and the day continues showery. It has been possible to do but little cultivation since the potatoes were planted, however, we are very fortunate in the location of the experimental plots, there being no standing water on them except a small area on one end of the increase plots. The "bottom" below the Superintendent's House is a lake and ponds in all low places on the field. The tile lines are running full The corn and garden crops are backward on account of the cold and wet weather. The meadows and grain fields, however, are in fine condition.

(Otto I. Bergh).

Washington Notes. June 10, 1921.

The weather continues cool. The only crops that are making a satisfactory growth are those that require a cool climate, such as potatoes, cabbage, and lettuce. Warmth-loving plants like corn, tomatoes and cucumbers are more or less retarded in their development. Rain is needed at the present time.

Plans have been made to secure a motion picture film this coming week, showing the successive operations involved in the harvesting, barreling and shipping of the potato crop in the Norfolk district of Virginia. The writer expects to accompany the party to Norfolk for the purpose of selecting the particular phases of the operations necessary to the proper presentation of this subject.

During the past week the potato market has tended toward lower prices. Wednesday's Daily Market Report of the Bureau of Markets for June 8 claims a carlot movement of 651 cars of which 531 consisted of new potatoes. At Onley, Virginia, U.S. Grade No. 1 stock was quoted at $3.75 to $4.00 per bbl. while at Washington, N. C. the f.o.b. price was $3.25 to $3.40 per bbl.

(Wm. Stuart).

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WEEKLY POTATO BULLETIN

of the

OFFICE OF HORTICULTURAL & POMOLOGICAL INVESTIGATIONS

JUN 1 8 1921

The material contained herein is not for publication except by permission from the Office of Horticultural and Pomological Investigations.

Greeley, Colorado. For the week ending June 11, 1921.

The rainy period continued up to and including Wednesday, June 7. The total precipitation for the first three days of the week was 1.05 inches. On Thursday, June 8, the weather suddenly changed and during the latter part of the week was very hot.

On Saturday the work of cultivating the potato plots was begun and probably will be finished by Thursday or Friday of this week. It is thought that the first cutting of alfalfa will be made the latter part of the week. Many of the seedlings have germinated; they were planted about May 20. The seedlings probably will have to be sprayed because the flea beetles are making their appearance in large numbers.

Planting operations in the Greeley district, which had been held up by the rain, started again the latter part of the week and all planting probably will be finished within a few days. At this time the early potatoes in the district look very well.

(W. C. Edmundson).

Jerome, Idaho. For the week ending June 11, 1921.

The weather the past week has been very favorable to growing crops. All crops at the Station are looking fine except the potatoes which show poor germination.

We began watering the grain yesterday, and will start making hay Monday if the weather conditions are favorable.

We had one of the worst hail storms on June 27 that we have had in the past twelve years. The hail caused quite a bit of damage in some sections, but we were fortunate in not being in its path. In some places it was necessary to clip the hay, and it is reported that the grain was cut off at the ground.

(W. G. Randolph).

Presque Isle, Maine. For the week ending June 11, 1921.

The weather for the past week has been very warm and dry. Saturday night it began to rain and continued all night. Sunday night it began again, and is still coming.

On Aroostook Farm cultural operations were continued on our own plats and on those of Dr. Schultz and Dr. Cook. The seed development plat on the Savage field was horsehoed with disks attached in place of the wings.

We finished picking rocks on the plat set aside for the 1921 seedlings and harrowed it with the disk harrow. With the rain we have had during the last 48 hours this plat is now in excellent condition for the seedlings, which we are planning to put out this week.

(P. M. Lombard).

Wisconsin Notes. June 14, 1921.

The Station force at Spooner planted the Triumph, Early Ohio and Irish Cobbler plots today. The land is in excellent condition for planting.

The plants in the Rural New Yorker and Green Mountain plots are about two inches high. All the plots were planted 3 ft X 2½ ft. The stand on the late plots is unusually good in uniformity. A careful inspection of the plots, however, shows a marked difference in size of plants and uniform stand.

The old potato beetles are numerous and are laying eggs at this date. Indications point to a very bad bug year.

The plots are receiving the first cultivation today.

In about five days we will begin spraying with arsenicals to control the bugs. The poisons will be applied with diluted Bordeaux mixture.

(J. G. Milward).

Norfolk Notes. June 17, 1921.

Wednesday and Thursday of this week was spent in the Norfolk district assisting in the securing of a motion picture film of the harvesting and shipping operations connected with the digging and handling of early potatoes. The filming of these scenes was done by Messrs Kelley and Cramer of the Motion Picture Office of the Department of Agriculture. Notes were also taken on the experimental potatoes at the Virginia Truck Experiment Station. On Wednesday afternoon the arrival of potatoes in small boats and on lighters at the Old Dominion Line's Wharf and the discharging and trucking of the barrels into the holds of the Ocean carrying ship was filmed. Tuesday forenoon the field activities connected with the digging, grabbling, picking, barreling, hauling and delivering of the barrels at the farm wharf were filmed on the farm of Mr. Tom Griffin.

The work of securing these pictures was greatly facilitated through the kindness of Prof. Johnson who conveyed us to the Griffin farm and to other points in his auto, and to Mr. Tom Griffin who staged all the digging activities on his farm in order that the particular features desired could be secured.

The Norfolk and Eastern Shore potato situation from the market standpoint at least, is rather unsatisfactory. The f.o.b. quotations on Wednesday ranged from $2.25 to $2.75 per barrel. The crops in these two sections are suffering quite severely from drouth. No rain has fallen in the Norfolk area for over two weeks.

The plants in the experimental potato plots are nearly ripe and it is planned to harvest them next week.

Yields.- The yield of early potatoes in the Norfolk and Eastern Shore districts are ranging from 30 to 80 or more barrels per acre. The higher yields are the exception rather than the rule.

(Wm. Stuart).

Washington Notes. June 17, 1921.

Little of interest has transpired since our last communication. A request has been received this week from the Division of Botany of the Dominion of Canada for fifteen copies of Department Bulletin 176 which are to be placed in the hands of the Canadian certified seed potato inspectors for their guidance in the determination of varieties.

The weather has been quite warm this week and a good shower is badly needed by growing crops.

Farmers' Bulletin 1205 entitled "Potato Production in the South" will be ready for distribution within a few days.

The editor of the "Eye" desires to remind those receiving this weekly publication, that its interest to readers is directly proportional to the number of its contributors and the extent of the country represented. Will you not consent to become a regular contributor to its pages? All contributions should be in the hands of the editor not later than Friday morning of each week.

(Wm. Stuart).

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WEEKLY POTATO BULLETIN

of the

OFFICE OF HORTICULTURAL & POMOLOGICAL INVESTIGATIONS

JUN 2 5 1921

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Greeley, Colorado. For the week ending June 18, 1921.

During the past week theweather for the most part has been warm. Two light rains were recorded with a total precipitation of 0.25 of an inch.

The work of cultivating the potatoes was finished Wednesday, June 15. This is the second cultivation of the plots. The potato plants look strong, with the exception of the seedlings, among which are noticed a number of weak plants. It is hoped that favorable weather conditions from now on may improve their appearance.

We began cutting alfalfa on Friday, June 17. Saturday afternoon a heavy wind scattered the hay quite badly. Cutting will be finished today and probably stacking will begin on Thursday if weather permits.

According to the report of the Colorado Immigration Commission, Weld County will have 21,739 acres of irrigated potatoes compared with 15,987 acres last year, and 2,100 acres of non-irrigated potatoes as compared with 952 acres in 1920. These figures were gathered by the field men of the assessor's office, and it is stated that ninety per-cent of the farm schedules had been turned in when these compilations were made. It is noticed in visiting the potato fields that the flea beetle is doing considerable damage to early varieties.

(W. C. Edmundson).

Jerome, Idaho. For the week ending June 18, 1921.

The weather conditions for the past week have been very unsettled. It has been quite cool with prevailing showers. However, conditions seem to be more settled today. We cut hay Monday and Tuesday and have been unable to do anything more in this way. The potatoes are showing poor growth due mostly to the cool weather.

It is necessary to cut all hay quite early on account of the amount of water grass in it. As a result there will only be two-thirds of a crop. The stock will eat it if it is not allowed to ripen.

Grain crops have shown a fine growth the past week, but it looks as if there was going to be an unusual amount of straw which will, no doubt, cut the number of bushels at harvest time.

All fruit seems to be doing better than early estimates indicated. It was first thought it would be badly damaged by the late frosts. The estimates of the fruit crop of the State show a large increase over that of last year.

Irrigation water seems to be plentiful, as we still have an extra amount.

(W. G. Randolph).

Ames, Iowa. For the week ending June 18, 1921.

Tip burn and potato bugs are both making their appearance in this section. Ordinarily the potato beetles do not make their appearance here in large numbers until about the middle of June. Pursley which is regarded as a hot weather weed is also unusually prevalent in the potato fields for this time of year, indicating an early season.

On the whole the temperature and rainfall has been very favorable for the potato crop.

(A. T. Erwin).

Presque Isle, Maine. For the week ending June 18, 1921.

Cultural operations were continued on the Aroostook State Farm plats and the plat on the Savage fields.

The weather for the past week has been cold and cloudy, but unfortunately we got no rain.

The 1921 seedlings will be transferred to the field next week. We delayed putting them out sooner because of frost danger.

In a recent interview with the County Agent for this section of Aroostook I learned that potato fields in general show considerable misses this year. This is attributed to several causes, poor seed, seed cut and allowed to heat, dry weather since planting, together with poor mixing of fertilizer with the soil.

(P. M. Lombard).

New Brunswick, New Jersey. For the week ending June 18, 1921.

On June 10 and 15, the Mercer and Monmouth County potato growers conducted tours to examine the potato experiments and demonstrations. The seed source tests attracted considerable attention and a number of very interesting points were brought out. This was particularly true of the tests of Maine certified and non-certified seed planted side by side in Mercer County. All of the plants in rows planted with certified seed were healthy while there was approximately five per cent black leg and twenty per cent leaf roll in the non-certified seed.

I have just returned from a trip to Salem and Cumberland counties in South Jersey and find that the dry conditions have been the cause of serious injury to the crop. This is particularly true on the lighter soil types. Here in some cases as many as 75 per cent of the plants are dead and the remainder are very weak. In Salem county there are some very striking illustrations of failure of seed from northern sources. Several cases were observed where, in half of the field planted with South Jersey seed, there is a perfect stand. In the remainder of the field, planted with northern seed, the stand is only 30 per cent.

(Wm. H. Martin).

Madison, Wisconsin. For the week ending June 18, 1921.

Unusual hot weather has prevailed in Wisconsin during the past week. Upper Wisconsin growers have practically finished planting and growers in the central belt will finish this week.

In respect to acreage and condition of the crop - all is considered very satisfactory to this date.

Several of the better strains of Rural New Yorker in Wisconsin were sent to Hancock in Central Wisconsin for trial last week. Growers in Central Wisconsin are planning to concentrate more and more on the Rural New Yorker. They are taking an active interest in the comparison of Rural New Yorker now grown in the state.

At this date many growers are sending inquiries to this office, on the control of the beetle - flea beetle and leaf hopper. If the weather continues hot and showery we may expect more than a normal amount of damage from these pests.

(J. G. Milward).

Norfolk Notes. June 22, 1921.

The writer accompanied by Wilfrid Boulter, Deputy Minister of Agriculture for Prince Edward Island and Secretary of the P. E. I. Seed Potato Growers' Association arrived at Norfolk Tuesday morning. A part of the experimental potato plats at the Virginia Truck Experiment Station were harvested in the afternoon. Some of the plots yielded at the rate of 100 bbls. per acre of primes and culls combined.

On Wednesday the remainder of the field was dug and a start made on the grading and weighing of the tubers produced on each plat row.

The quality of the stock is good and the condition of the soil was of such a character that the tubers came out of the ground in a clean and bright condition. It is hoped that the grading and weighing of the stock may be completed by Friday.

The warm weather of the past two days has been made bearable by cooling breezes.

The truck growers of the Norfolk district are harvesting potatoes freely this week. The prospect of better prices later in the season does not appear to be strong enough to delay harvesting to any extent at least.

About 640,000 barrels of potatoes have been shipped from the Norfolk district thus far this season. Well informed parties estimate that the season's shipment will exceed a million barrels.

A heavy rain last Saturday evening in which a precipitation of 1.125 inches was recorded, was worth many thousands of dollars to the growing crops.

(Wm. Stuart).

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WEEKLY POTATO BULLETIN

of the

OFFICE OF HORTICULTURAL & POMOLOGICAL INVESTIGATIONS

JUL 2 1921

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Greeley, Colorado. For the week ending June 25, 1921.

The weather has been quite generally fair and hot during the past week. Friday evening, June 24, a slight precipitation was recorded.

We began stacking hay on June 22 and finished on the morning of the 25th. Some of the hay was slightly damaged by the hail two or three weeks ago. Irrigation of the alfalfa was begun on Friday morning and the water has been run continually since that time. We expect to finish irrigating by Tuesday morning of this week.

The flea beetle and the Colorado potato beetle are still present in large numbers and many of the growers have been spraying during the past two weeks.

Some of the farmers of the Greeley District whose crops were badly damaged by the flood water intend to plant potatoes as soon as the ground can be worked. It is believed that the early varieties will have a chance to mature, although the planting can not be done until the first part of July.

(W. C. Edmundson).

Presque Isle, Maine. For the week ending June 25, 1921.

The weather for the past week has been hot and dry. Potatoes, hay and grain as well as garden truck is suffering severely by the prolonged drouth. Early planted potatoes appear to be in very good condition, the plants are from six to eight inches in height, and some fields are beginning to blossom.

Late planted potatoes are making but slight growth, and if moisture is not supplied soon the yield will be very small.

Spraying operations have begun with both wet and dry bordeaux. Agents for a well-known Duster have placed a large number of machines in this section of the county. I understand they guarantee this machine to control aphids, kill bugs and control late blight or cost of material and machine refunded. Wells and springs are drying up to such an extent that many farmers are forced to haul water one and two miles for wet bordeaux mixture. This makes spraying a very expensive operation and is no doubt the reason for many farmers purchasing a duster this season.

On Aroostook Farm cultivation with horsehoe and by hand has been continued. The plants have also been sprayed with bordeaux and arsenite of zinc.

About 5900 seedling potatoes and 100 tobacco plants were transferred from the greenhouse to the field Tuesday, Wednesday and Thursday.

Disease is beginning to show in the plats and rouging will begin next week.

(P. M. Lombard).

Fredericton, New Brunswick. June 20, 1921.

We have had a very dry season until lately, and reports are that considerable of the seed has failed to germinate. As yet I do not know how the Green Mountains, American Giants and Bliss Triumph have germinated on the north shore, although I expect they will do fairly well as the season was very cool over there and rain came a little earlier.

(G. C. Cunningham).

Madison, Wisconsin. June 27, 1921.

Prevailing weather in Wisconsin during the last week has been hot and dry. Although hay and grain crops have been reduced in some sections, the condition of the potato crop remains very satisfactory. On this date rains are falling and the temperature is lower thus eliminating any immediate losses to the potato crop.

As previously reported weather conditions have been ideal for the development of the Colorado and flea beetles and our growers must be especially vigilant this year with control measures.

Reports from the Spooner Branch Station indicate that the potato plants are growing very rapidly. The writer will leave for Spooner on Tuesday night to take notes. A thorough spraying of arsenicals has been applied using dilute bordeaux mixture as the carrying agent.

(J. G. Milward).

Spooner, Wisconsin. June 29, 1921.

I arrived here this morning. The late variety plots are in an unusual thrifty condition. The vines are about 10 to 12 inches high and growing very rapidly.

The men have sprayed twice for bugs and have them well under control. We will spray again this afternoon as new colonies of bugs are continually hatching and it will take continual vigilance to get them all. The old beetles are still at work. The dry, hot weather has been unusually favorable for bug development.

Three-tenths of an inch of rain fell about June 25. The fields have been cultivated twice and hand hoed which accounts in part for the thrifty growth.

The early variety plots are just coming through the ground. The rows are just visible and cultivation will start at once. The stand will be very satisfactory.

The men feel well pleased with the check row system (30 in.X 3 ft.) It has permitted good cultivation both ways. For accurate experimental work on this type of sandy land, I believe it will prove the best system.

(J. G. Milward).

Travel Notes. July 1, 1921.

On Wednesday and Thursday (June 29-30), the writer had the privilege of attending the Fourth Annual Potato Inspection Trip of the Suffolk (N.Y.) County Farm Bureau. It was estimated that fully 375 persons made the trip Wednesday afternoon. Representatives were present from Vermont, Massachusetts, Rhode Island, Connecticut, Pennsylvania, New Jersey and Washington, D. C. There were also representatives from the Provinces of Ontario, New Brunswick, Prince Edward Island and the Dominion of Canada as a whole.

The program on Wednesday afternoon consisted in a run by auto from Riverhead to the farm of C. C. Dimon & Son of Southampton, where a demonstration of dust spraying was staged; four types of dust machines being used. The advocates of dust spraying seem to be on the increase on Long Island. Some 70 acres of potatoes are being grown on the Dimon farm this year of which all but one or two acres consist of Green Mountains. The uniformity and vigor of the plants on this farm augurs well for a profitable crop later on. The next farm visited was that of H. Morgan Topping of Wainscott where both the visitors and the local growers had an opportunity to study a rather extensive test of strains of Gree n Mountain potatoes. While differences could be observed among the various strains they were by no means as great as the writer had expected to see. The inference to be drawn is that the growers and inspectors of certified seed potatoes are making real progress in the improvement of certified seed stock. With the exception of a relatively few strains the various lots of seed stock planted on the Topping farm had made a very good vine growth and were relatively free from the mosaic and leaf roll diseases of the potato. Prior to the arrival of the party at the field two plants of each strain had been dug in order to enable those in the party to judge of their relative earliness and productiveness. Of the 86 lots under trial on the Topping farm, 16 came from Vermont, 42 from New York State, 7 lots from Maine, 6 lots from Prince Edward Island, and 3 from New Brunswick.

On completion of the inspection of Green Mountain stock on the Topping Farm the party returned to Riverhead.

Heavy rain early Thursday morning served to lessen the crowd of the previous day and its its continuance throughout the day seriously interfered with the program.

The first farm visited Thursday morning was that of Mr. H. R. Talmage on which one of the cooperative triangular fertilizer experiments conducted by the Office of Soil Fertility Investigations of the Bureau of Plant Industry is located. Owing to the rain it was impossible to secure notes on the behavior of plants grown under the different fertilizer applications. Addresses by Mr. B. E. Brown of the Office of Soil Fertility Investigations and Prof. Blair of the Rhode Island Experiment Station proved both interesting and instructive to those present.

The next stop was made at the farm of H. J. Ree ve of Mattituck where there is an almost exact duplicate source of seed trial. The Green Mountain strains on Mr. Reeve's farm seemed to be somewhat larger and more uniform in size and vigor than on Mr. Topping's farm. A heavy downpour at this point necessitated an immediate withdrawal from the

field to our autos, after which the party proceeded without further stop to Greenport where a genuine shore dinner proved to be the pièce de resistance of the trip. Continued rain precluded further field inspection work thus bringing to an abrupt conclusion what promised to be one of the most successful meetings yet held under the auspices of the Suffolk County Farm Bureau.

The general condition of the Green Mountain crop on Long Island is quite satisfactory while that of the Irish Cobbler crop is as a rule not particularly promising. A number of Irish Cobbler fields were noted on Thursday that will probably not harvest over 75 to 100 bushels per acre, while a few fields were estimated at 50 bushels or less. The heat and drought of the preceding weeks was quite largely responsible for the premature ripening of the plants with a consequent reduction in yield. In other instances poor stands will prove large factors in lessening the yield.

(Wm. Stuart).

Washington Notes. July 1, 1921.

The severe heat and drought of the past few weeks has prematurely ripened the Irish Cobbler plants in the Arlington Farm experimental field. It is doubtful if the heavy showers of Sunday, Wednesday, Thursday and the showery weather of today will materially revive plants as seriously injured as those noted above. Unless something unforseen occurs it is propcsed to harvest the Arlington Farm plot July 11 and to plant the Fall crop potatoes immediately thereafter, but not, of course, on the same land.

The writer proposes to spend July 6-8, in Avery County, N. C. studying the possibilities of that region as a source of seed stock for the truck sections of the South. A fair beginning has already been made in this direction.

(Wm. Stuart).

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OFFICE OF HORTICULTURAL & POMOLOGICAL INVESTIGATIONS

JUL 9 1921

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Greeley, Colorado. For the week ending July 2, 1921.

We have had a number of very hot days during the past week. Sunday the temperature dropped and during the night rain started to fall and continued most of Monday, July 4. A total of 1.10 inches fell during the day.

Some of the potatoes were cultivated this week, and all plots were sprayed with bordeaux mixture and Paris Green. The flea beetle has been doing considerable damage to the potato vines this year, and the larvae are working at this time on the tubers of the early potatoes.

There seems to be quite a large acreage of early potatoes in the district but the exact acreage is not known.

The rain which fell July 4 will be of great value to all crops. Most of the potatoes were in need of water. We had planned to irrigate part of the irrigation experiment within a few days. This experiment cannot be conducted this year according to outline because of the seasonal conditions.

The alfalfa has been growing rapidly since the first cutting and we are expecting a good second crop of hay. All the potato plots are looking very promising at this time.

(W. C. Edmundson).

Jerome, Idaho. For the week ending June 25, 1921.

The weather during the past week has been more settled. The potatoes on the Station farm are not making the growth they should have made at this season of the year. They look as if they were badly diseased. Early potatoes are coming onto the market. A part of them are home grown stock. Grain crops are looking fine. Wheat is heading out and promises a good yield. Sugar beets are looking better at this date than for the past five years.

We were able to finish haying after being obliged to turn over the cut hay three times.

According to all reports the use of storage water will begin about July 10. This indicates the possibility of only a limited supply after September.

(W. G. Randolph).

Indiana Notes. July 5, 1921.

The potato work in Indiana is coming along quite nicely. We had 2900 bushels of Minnesota certified Ohios from the Red River Valley planted in one section and they have looked fairly good throughout the growing season. The hot dry weather has damaged the yields considerably. Where they were given some irrigation we secured yields of 230 bushels

to the acre. The unirrigated fields will perhaps run around 100 bushels. I noticed two diseases quite common in this certified seed. They were Black Scurf and Black Leg. When the plants were about six inches high we counted 2 per cent of these two diseases combined. That is, there was a total loss of about 2 per cent caused by these diseases. The yields of our early potatoes over the State have been somewhat reduced by the early drouth. The late potatoes, however, are coming along in nice shape. I believe that we have about a normal acreage.

(F. C. Gaylord).

Presque Isle, Maine. For the week ending July 2, 1921.

The drouth remains unbroken and the past week has been very hot and dry. Potatoes are suffering from lack of moisture and many plants six inches in height are beginning to blossom.

Dr. Wallace of the Fungicide and Insecticide Board, and his assistant, Mr. Perry, arrived the first of the week to begin spraying experiments on Aroostook Farm and commercial fields nearby. Dr. F. C. Cook of the Bureau of Chemistry also arrived about the same time to begin spraying experiments.

The past week was devoted mainly to spraying operations on our own plats and those of Dr. Cook.

(P. M. Lombard).

Washington, D. C. Notes. July 7, 1921.

It has been possible to arrange for an inspection and rouging of the seed potato development plots at Grand Rapids, Minnesota, and Spooner, Wisconsin by Mr. Wellington who plans to leave on Saturday evening.

The writer left Washington for a potato field trip in Avery County, North Carolina, Tuesday evening. In the vicinity of Newland, North Carolina an attempt is being made to develop a seed potato industry. It is proposed to carefully inspect this region and the character of the stock being grown.

The weather conditions in Washington have remained about the same as last week. The hot wave had not been broken prior to Tuesday evening.

(Wm. Stuart).

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Greeley, Colorado Notes. For the week ending July 11, 1921.

Light rains were recorded on Tuesday and Wednesday of last week. Since that time the weather has been very hot. The heavy rain of July 4, together with the cooler weather of July 4, 5 and 6, was of great benefit to the potatoes of this section. All of the potato plots were cultivated during the week. We began irrigating part of the plots of the Irrigation Experiment today. This is the first irrigation given the plots that are to be irrigated frequently during the season.

All fields of potatoes look very well at this time. Some of the growers are irrigating their potatoes. Grain is ripening rapidly throughout the country and many of the farmers are planning to cut their grain this week. The beet web worm, the potato flea beetle, and the Colorado potato beetle are no longer doing particular damage at this time.

(W. C. Edmundson).

Province of New Brunswick Notes. Fredericton, N. B. July 4, 1921.

Thursday, Friday, and Saturday (June 30 to July 2) were spent on the North Shore. The dry weather has seriously injured the germination of the seed potatoes in many fields. There was practically no rain this spring until the 26th and 27th of June, when a generous supply fell leaving the ground in almost perfect condition. Fields which were ploughed last fall or early this spring and worked up so as to conserve the moisture show but little germination injury, whereas those ploughed and cultivated late this spring show from 25 to 75% of misses. Apparently the upper layers of the unploughed soil were completely dried out and when turned under it served as a non-conductor of moisture to the germinating seed piece, thereby allowing it to dry out. There is no evidence whatsoever that the seed or the fertilizer was responsible. This condition apparently obtains throughout the Province. Several growers have replanted parts of their acreage. A few farmers have sustained quite heavy losses.

(G. C. Cunningham).

Presque Isle, Maine. For the week ending July 11, 1921.

The severe drouth of this section was broken Friday when a small cyclone accompanied by a cloud burst arrived about three o'clock in the afternoon. This was followed by small showers later in the afternoon, and west of this section heavy showers came Saturday.

Potato bugs are very abundant this season, and thus far it has been necessary to add poison to the bordeaux mixture every time the fields are sprayed. Plant aphids are very few in number this year, however, the Tarnish Plant bugs are very abundant and have done considerable damage to the young growth of potato plants and are found in great numbers in garden plats.

We have rogued all of our plats once and plan to go over them the second time next week.

(P. M. Lombard).

Grand Rapids, Minnesota. July 12, 1921.

The weather is very warm in Northern Minnesota but in spite of this fact, the crops look very well indeed. There has been plenty of rain in Itasca County, at least as evidenced by the thrifty condition of corn and potatoes and the abundant hay crop which is being harvested.

Our potatoes look very well, perhaps the individual plants are not quite as large as last season but the whole experiment is much more uniform. There are very few blooms on any of the varieties whereas a year ago the plots were veritable flower gardens. This absence of bloom is undoubtedly due to extended heat which has caused the buds to drop before opening. The stand is good, with some few exceptions. Very little disease was found, with the exception of one Minnesota Triumph lot, which may have over 50% mosaic infection. The following strains were rated first in their respective variety groups.

Triumph	J. W. Smith, Kent, Wisconsin.
Cobbler	North Central Experiment Station.
Ohio	G. M. Sheldon, Tomahawk, Wisconsin.
Green Mountain	Chas. Holm, Three Harbors, Minnesota.
Rural New Yorker	August Wickstrom, Pine City, Minnesota.
Russet Burbank,	North Central Experiment Station.

Seedling #38774 is making a splendid showing and is really one of the best appearing plats in the field. To conclude, the condition of our plots at Grand Rapids is very satisfactory and this will undoubtedly be a good year.

Left Grand Rapids Tuesday afternoon for Spooner, Wisconsin, arriving there at 9 P. M. same day.

(J. W. Wellington).

North Carolina Notes. July 15, 1921.

Thursday and Friday (July 7 and 8) were spent in Avery County, N. C. studying the possibilities involved in the growing of certified Irish Cobbler seed potatoes in that locality. A few small plots of potatoes were noted here and there and a number of them were found to be relatively if not entirely free from mosaic disease and leaf-roll.

A meeting was held at Crossnore on Thursday afternoon for the purpose of discussing the seed industry with the prospective growers. Although the attendance was small considerable interest was manifested by those present. The meeting was called to order by Mr. Frank Bigelow of Linwood Falls. The speakers were Messrs A. C. Foster of the State Department of Agriculture, Raleigh, N. C., F. Goodman, County Agent, Avery Co., and M. Shapovalov and Wm. Stuart of the U. S. Department of Agriculture. An evening meeting was scheduled to be held at Linville City, but owing to some misunderstanding it had to be abandoned.

On Friday some experimental potatoes were inspected on Mr. Blair's farm near Newland, N. C. after which the party drove to Linwood Falls. In the afternoon a meeting of farmers was held at Hughes with the same speakers participating. A similar meeting was held in the evening at Newland. This meeting proved to be the best attended and the most interesting of the three.

Abundant rains fell during the week.

The writer left the party at Newland on Saturday morning and arrived in Washington Sunday morning.

A brief summary of our impressions of Avery County, as a possible source of Irish Cobbler seed potatoes for the growers in the eastern part of the State may be expressed as follows.-

1. The average elevation of the agricultural portions of Avery County is sufficiently great (3000 ft.) to justify the belief that the climatic conditions are favorable to the production of good seed.

2. The appearance of the potato crop noted in gardens and small plots in the field indicate that the seed stock produced in this locality is of good quality.

3. The importation of a carload of good Irish Cobbler seed stock into the County is necessary to the establishment of the seed potato industry.

4. The present facilities for moving the crop to market is the most serious handicap to the success of the enterprise.

(Wm. Stuart).

Washington Notes. July 15, 1921.

Rain has fallen every day this week with very heavy showers Monday and Wednesday afternoons. Our plan to harvest the experimental potatoes at Arlington Farm and to plant late crop potatoes this week had to be abandoned on account of frequent showers and the condition of the soil. It is planned to begin harvesting the potatoes this afternoon (July 15).

(Wm. Stuart).

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THE EYE

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WEEKLY POTATO BULLETIN

of the

OFFICE OF HORTICULTURAL & POMOLOGICAL INVESTIGATIONS

JUL 23 1921

The material contained herein is not for publication except by permission from the Office of Horticultural and Pomological Investigations.

Greeley, Colorado Notes. For the week ending July 16, 1921.

During the past week the weather has been very hot. On Thursday, July 14, a light rain was recorded and on July 17 and 18, respectively, a trace of precipitation. The cooler weather following these rains has been very beneficial to the growing crops.

The potatoes at the Station have been making excellent growth during the past week, and some of the early varieties are in full bloom. This week we expect to irrigate all the experiment plots with the exception of those in the Irrigation Experiment which are to be given infrequent irrigation during the year.

Potatoes in general are looking very well in the Greeley district at this time. Potatoes planted before the heavy rains of the first week in June seem to have produced a better stand than those planted later. This may be partially due to the very hot weather following the rains and also to the fact that the seed, which had been cut some time in advance of planting, was not well cured or was not properly stored.

There is a much larger acreage of early potatoes in the district than is ordinarily planted. Usually 50 cars of early potatoes are shipped out of the district each year; it is thought that probably 250 cars will be shipped this year. With good growing conditions there should be from 7,000 to 7,500 cars of late potatoes from the Greeley district.

Alfalfa has been making a rapid growth and we probably shall cut our second crop of hay within the next week. The oats are beginning to ripen and soon will be ready to cut.

(W. C. Edmundson).

Jerome, Idaho Notes. For the week ending July 16, 1921.

Weather conditions during the past two weeks have with but one exception been favorable to plant growth. The exception noted was a light frost on July 3, which injured corn and beans in some sections of the tract.

Twin Falls and the Buhl sections were visited last week. Potatoes have not made the growth of vine that is usual at this date. The plants while in full bloom are now only from eight to twelve inches in height but they are developing good tubers.

Grain is beginning to ripen and gives promise of making a heavy yield. Some growers are estimating their wheat crop at 60 bushels per acre.

Alfalfa will be ready to cut again the latter part of this month and everything points to a heavy yield. A considerable alfalfa acreage is being devoted to the production of seed. Sugar beets are looking fine and prospects are bright for a heavy tonnage.

(W. G. Randolph).

Madison, Wisconsin Notes. For the week ending July 16, 1921.

Reports received at this office show that the potato crop has been damaged in several sections of the State by the recent dry, hot weather. The damage to the potato crop, however, is not general as several sections of the State received rain at the critical period. The earlier plantings also suffered more than the late planted stock.

At this writing, rains have been reported and we still look for a good crop in several counties if weather turns favorable.

Potato Inspection started in Wisconsin last week. An increased acreage has been registered in Wisconsin, especially in Marinette County where seventy-five growers have applied. The increase in applications is due to the dissemination of improved strains in the State this year.

(J. G. Milward).

Spooner, Wisconsin Notes. July 13, 14, 1921.

In spite of heat and drouth, the potato plots at the Spooner Branch Station were found in good condition, although a little too weedy for satisfactory appearance. This is, however, only a temporary drawback, as it is planned to have the fields in good shape for Farmers' Day, July 29. Leaf hoppers were very numerous, especially in the late variety field and were causing considerable foliage injury.

The late varieties planted May 20 and 21 were about full grown and examination showed that young tubers were forming on the Green Mountains. The Rurals were as usual very uniform and very healthy but several of the Green Mountain strains were badly infected with mosaic, one lot losing 20 per cent of its plants in roguing. On account of the abundance of leaf hoppers, all lots were rogued.

The early varieties planted June 14, were not far enough advanced to indicate diseased individuals and it was only possible to secure germination and general appearance notes. Very little rain had fallen since their planting.

The following strains were considered most promising in their respective groups.

Rural New Yorker	Ed. Kringle	Rice Lake, Wis.
Green Mountain	Chris Mickelson	Hazelhurst, Wis.
Irish Cobbler	Albert Gruman	Lacna, Wis.
Early Ohio	Chris Mickelson	Hazelhurst, Wis.
Triumph	J. W. Smith	Kent, Wis.

Our seedling #38774 is making a very satisfactory growth.

(J. W. Wellington).

Washington Notes. July 21, 1921.

Harvesting operations at Arlington Farm were arrested shortly before three o'clock Friday, July 15, by one of the heaviest downpours of rain of the season. Saturday forenoon was devoted to securing weights of primes and culls from each row harvested before the rain. Harvesting operations were completed Monday afternoon and a nice start made in the taking of data on yield. On Tuesday the land intended for late crop planting had dried out sufficiently to permit of fitting it, and planting was completed before the close of the day. The weighing of the newly harvested early crop was completed Wednesday forenoon.

Owing to injury from heat and drought the early crop was reduced at least one third in bulk and as much or more in actual quality of the stock.

Thus far this week the weather has been fair and for the most part tempered by refreshing bree zes.

The writer plans to leave Washington for Maine tonight, July 21. The itinerary calls for stops at -

New Haven, Conn.	July 22.	Bradford, Vt.	Aug. 2.
Kingston, R. I.	July 23.	Bridgeton, N.J.	Aug. 4-5.
Orono, Maine.	July 25.	Moravia, N. Y.	Aug. 6,
Presque Isle, Maine	July 25-30	Whitehaven, Pa.	Aug. 7-8.
St. Albans, Vt.	Aug. 1.	Washington, D.C.	Aug. 9.

(Wm. Stuart).

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WEEKLY POTATO BULLETIN

of the

OFFICE OF HORTICULTURAL & POMOLOGICAL INVESTIGATIONS

JUL 30 1921

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Greeley, Colorado Notes. For the week ending July 23, 1921.

The weather continues hot and there has been no rain during the past week. Cutting the alfalfa was begun on Friday, July 22, and finished this morning; stacking will be begun about the middle of the week. The oats are ripening rapidly and probably will be ready to cut about the latter part of this week or the first of next.

We began to water the potatoes this afternoon and hope that we shall have the use of the water long enough so that the entire field of potatoes may be irrigated.

Many of the growers are harvesting their early potatoes this week. Dealers are offering $1.50 per hundred at this time.

(W. C. Edmundson).

Presque Isle, Maine Notes. For the week ending July 16, 1921.

The weather for the past week has been hot and dry. A few showers visited nearby fields, but for some unknown reason Aroostook Farm and adjacent fields seemed to have been omitted.

Rouging out diseased plants from our plats has occupied most of our time this week. Dr. Clark has begun some breeding work on a few varieties. The bulk of the buds drop off before opening and at this time it looks as if very little breeding work could be done this year.

(P. M. Lombard).

Presque Isle, Maine Notes. For the week ending July 23, 1921.

Rain Tuesday and Wednesday of this week was of great value to the potato crop. The latter part of the week was very hot and muggy. We have continued spraying operations on our plats on Aroostook Farm.

About one hundred acres of the Erickson strain of Irish Cobbler potato has been located this week. This strain has proven to be the leader in our seed development studies, and commercial fields of this strain inspected this week are very satisfactory. We have interested several growers in this strain and it is hoped that the bulk of this stock will be placed this fall among the growers of this county.

Dr. A. B. Stout, Director of the Laboratories, New York Botanical Garden, arrived in Presque Isle, Tuesday. Dr. Stout is making a study of the sterility of potato pollen.

Dr. G. C. Cunningham of Fredericton, N. B., accompanied by his father-in-law Mr. Whidden of Jackson, Mississippi, visited this section Tuesday and Wednesday. Mr. Cunningham was especially interested in several lots of Green Mountain seed placed in this county last fall from New Brunswick. Very little disease was found in the fields visited,

and it is hoped that Mr. Cunningham will succeed in placing more of this seed stock in the county this fall.

(P. M. Lombard).

New Brunswick, New Jersey Notes. For the week ending July 23, 1921.

Thursday of last week (July 14) was spent in Salem County. A potato run was held with 100 potato growers present, With but few exceptions the vines in that section are dead. The crop is very light, not more than 50 per cent of a normal. Two seed sources were dug, and in both cases the second crop seed out yielded seed from other sources included in the tests. Maine certified and non-certified seeds were included in their tests, a difference of 60 and 57 bushels per acre respectively was noted in favor of the former. Two sulphur tests were dug and marked differences were apparent in the amount of scab on the treated and untreated plots. One of the most striking demonstrations examined was a spraying test with the Irish Cobbler variety. On the check plots, sprayed with Arsenate of Lead, over 75 per cent of the leaves show heavy tip-burn as compared with a trace on the plots treated with the Bordeaux mixture.

The condition of the crop in central Jersey is very poor. There is a heavy infestation of lice resulting in the early dying of many fields. The recent wet weather following the prolonged drouth has resulted in considerable second growth. In a number of fields most of the tubers in a hill are germinating, some show sprouts six inches long while others send out short sprouts on the ends of which small tubers are formed. Scab is abundant and severe, fields being observed where 75 per cent of the crop is very scabby.

(W. H. Martin).

Madison, Wisconsin Notes. For the week ending July 23, 1921.

Reports from Wisconsin at this date show that rains have fallen during the last week in certain sections of the State. The showers have not been general, however. On our better grades of potato soils, we consider conditions to be fairly satisfactory. On the lighter, sandy soils, considerable damage from drought is reported.

Our Wisconsin Potato Inspection Tour starts from Oconto on August 1, and closes at the Spooner Branch Station on August 6. After this tour we will be able to furnish a good estimate of the damage to the potato crop in Wisconsin. Reports from central Wisconsin indicate considerable loss due to the rotting of seed pieces. Rains have not been received recently, however, and as in the northern section, we will await an inspection tour before giving an accurate estimate of the losses.

(J. G. Milward).

Presque Isle, Maine. Travel Notes. July 27, 1921.

Friday afternoon, July 22, was spent at the Rhode Island Experiment Station inspecting the potato investigational studies carried on by Director Hartwell and his associates. Some of the Department's seedlings are being tested on the Station grounds. For a number of years the Rhode Island Experiment Station has made a careful comparison of home-grown vs. Northern (Maine) grown seed, size of seed piece, size of tuber, and number of eyes per seed piece have also been carefully compared with relation to their yields. Some especially fine Green Mountain plots were noted which had been produced from Vermont grown stock. The general condition of the various plots was excellent and the plants for the most part gave promise of a large yield. Through the courtesy of the Director and his associates it was possible for the writer, during the afternoon, to obtain a good general idea of the work being carried on at the Station.

Saturday, July 23, was spent in Worcester and in Gardner, Mass. Owing to the absence of Mr. Dearth of the Worcester County Farm Bureau it was not possible to inspect potato fields in the vicinity of Worcester. An associate of Mr. Dearth assured me that the potato crop of Worcester County showed a considerably smaller acreage this year than last and that the general condition of the crop was unsatisfactory. The Secretary of the Worcester County Horticultural Society, Mr. H. R. Kinney, corroborated the above statements and volunteered much interesting information concerning the varieties grown 30 to 40 years ago. In Gardner the writer had an opportunity to inspect a small field of Early Rose potatoes in which leaf-roll was very prevalent.

Monday forenoon, July 25, was spent with Director Morse at the Maine Experiment Station discussing the various phases of experimental potato investigations under way on Aroostook Farm. This farm is operated by the Maine Agricultural Experiment Station.

Tuesday, July 26, was spent in a study of the varieties and seedlings being grown on Arcostook Farm. Several lots of potatoes purchased this spring under new names were found to belong to one or other of the recognized groups of potatoes and are without doubt, in many instances at least, old varieties re-named.

Wednesday, July 27, was spent in rouging diseased plants out of the seedling and variety collection,

The general condition of the potato crop in Aroostook County at present writing is considerably below normal. Many fields show poor stands and crop growth is nearly at a standstill as a result of the heat and attendent drought. While no serious damage has as yet been sustained by the plants, at least as judged by outward appearances it is doubtful if the tuber set is up to normal. On Aroostook Farm the soil is in most cases as dry underneath the plants as it is on the surface. Some sections of the county have been favored with showers which have provided fairly good growing conditions.

One of the noticeable effects of the heat and drought upon the potato crop in this section is that of the relative absence of bloom on the plants and the small size of the leaves. In many fields the foliage is so modified as to make recognition in some instances rather doubtful.

(Wm. Stuart).

T H E E Y E

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WEEKLY POTATO BULLETIN

of the

OFFICE OF HORTICULTURAL & POMOLOGICAL INVESTIGATIONS

AUG 6 1921

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Greeley, Colorado Notes. For the week ending July 30, 1921.

During the past week we have had some rain. On Wednesday, July 27, a precipitation of 0.19 of an inch was recorded, and on Sunday, July 31, 0.48 of an inch. The weather is still unsettled and it is raining at the present time.

The oats were cut on July 29 and shocked on the same day. We were unable to finish stacking the alfalfa hay and part of it is now in the shock. Potatoes look exceptionally well at this time, and under favorable weather conditions there should be an excellent crop in the Greeley district.

Early cabbage has been moving quite steadily and growers have been getting from $1.75 to $2.00 per hundred. The price of early potatoes has dropped considerably during the past week and wholesale buyers are today offering only about a dollar a hundred.

(W. C. Edmundson).

Spooner, Wisconsin Notes. July 26, 1921.

We are holding the Annual Branch Station Meeting on the Station grounds here today and I am able to report further on conditions here as follows.

The temperature in this section has dropped in the last few days and heavy rains have fallen. The moisture on the potato fields extends down deep. There is prospect of more rain today.

The vines that showed some slight damage a week ago are now recovering. I look for a very good crop of potatoes on this Station if the weather continues favorable.

I went over the Triumph plots this morning in order to get notes on the condition of the plots. I found it very difficult to make mosaic counts. The plants have not quite recovered normal appearance and the mosaic expression is apparently not normal. On some of the plots a rather mottled condition could be detected and the more pronounced mosaic may show later.

There are apparently some very superior plots of the Triumph variety. The J. W. Smith strain is holding up again this year. Two or three other plots apparently are showing unusual promise.

It will be impossible to get any reliable mosaic counts at this date, due to the conditions above mentioned.

(J. G. Milward).

Sunset Farm, Three Lakes, Wisconsin. July 27, 1921.

The planting of the Triumph variety on Sunset Farm began early in May and nearly the entire acreage of 300 acres was planted by June 5. About 90 per cent of the potato acreage on this farm has been planted

to the Triumph, the balance to Irish Cobbler. With the exception of about 150 bushels of the "Smith Strain", the entire acreage was planted to Sunset Farm seed upon which a certificate was issued in 1920.

In view of the long planting season above mentioned, both early and late planted fields are available for inspection. The early planted fields have made a very satisfactory vine growth. The lower leaves have been damaged by the severe hot weather and drought.

At this date, July 27, heavy rains have fallen, the weather has turned cool and new green shoots are starting along the stems. The soil is well saturated with moisture. The setting of the tubers is considered satisfactory. There are from 5 to 7 tubers per hill, weighing from 3 to 5 ounces, with additional smaller tubers that will grow later to marketable size as the vines mature. If the weather continues cool, I would consider that there are prospects that the yield will exceed 200 bushels per acre. If unusually favorable weather prevails, a very large crop will be harvested.

The late planted vines have not been seriously damaged by the drought. The foliage is gree n and healthy. Opinion varies as to the estimated yields on the early and late planted planted vines, but under favorable conditions, I consider the late plantings will give the heaviest yields.

The conspicuous feature of the inspection today is the absence of either leaf-roll or mosaic symptoms. On this same date last year the mosaic counts ranged from 20 to 30 per cent. The mosaic condition is not in evidence today and it is impossible to make any satisfactory mosaic counts. The season of 1920 was moist and cool during the early half and hot and dry during the latter half, The season 1921 has bee n hot and dry from June 20 to July 25, and has turned cool on July 27. If mosaic is present on this date, it is masked or covered up and impossible to detect it.

The Wisconsin Inspection Service considers that these fields have passed a very satisfactory first inspection on this date, but will await further inspections after later growth to report final mosaic conditions.

From the standpoint of vine growth, cultural conditions, stand, insect control and prospects of heavy yield, the condition of Triumph fields on Sunset Farm is very satisfactory on this date.

(J. G. Milward).

Madison, Wisconsin. July 31, 1921.

A more careful inspection of potatoes in Upper Wisconsin indicates that the crop has been damaged to a greater extent by dry weather than previous reports to the "Eye" have indicated.

I have just inspected a number of fields in Oneida and Marinette counties and there is no question that the crop will be short in these regions. Early potatoes planted about June 15, seem to be in good condition. A large number of growers planted the late varieties as late

as June 20 this year. The intense heat during the germinating period damaged these late plantings. I have inspected several fields where 50 per cent of the plants are missing.

Notwithstanding this unfavorable season condition I have seen some of the finest fields of Triumph I have ever inspected in the State. We continue to be unable to detect the mosaic and even in strains we suspect to be inferior we are unable to make mosaic counts. This condition may change as the season advances.

Our Upper Wisconsin Potato Inspection Tour begins at Oconto tomorrow (August 1), and will give as an accurate estimate of conditions at this date.

(J. G. Milward).

Travel Notes. Montpelier, Vermont. August 1, 1921.

Thursday forenoon was devoted to the roguing of the Scotch variety collection, and the selection material on Aroostook Farm. Many of the Scotch varieties were so badly infected with leaf-roll as to necessitate the removal of all the plants. Mosaic infection was also quite common in many of the varieties. While Dr. Clark, Mr. Lombard and the writer were engaged in the roguing of the Scotch collection we were visited by County Agent, Philbrick, E. A. McCallan, Director of Agriculture for Bermuda and Hal B. Fullerton, Agronomist of the Long Island Railroad.

The afternoon was spent in a field inspection trip. The party consisted of Mr. Hubbard, Superintendent of the Dominion Experimental Farm, Fredericton, N. B. and Messrs Clark, Lombard and Stuart. Some especially healthy Green Mountain plants were noted on the farm of M. B. Hayford which had been grown from seed supplied by the Department in 1920. Some fine Irish Cobblers were also noted on this farm and one adjacent to it.

On Friday morning, July 29, the party, augmented by G. C. Cunningham, Pathologist of the Dominion Government with headquarters at Fredericton, N. B., Mr. Hubbard, Jr., C. Hayford and M. B. Hayford, proceeded to Washburn where several fields of Irish Cobblers and Green Mountains were inspected. Some especially fine Green Mountain, seed for which was furnished by Mr. Cunningham, was noted on one of these farms. This stock was in striking contrast to the general run of Maine grown Green Mountain seed stock. The Mapleton district was visited in the afternoon and some additional good Green Mountain stock furnished from the Department's seed development plots were noted.

On Saturday some fields were inspected in the vicinity of Ft. Fairfield. Two of these fields which had been planted with New Brunswick Green Mountain seed stock were found to be almost entirely free from mosaic. In fact no mosaic plants were detected in the first field and but a very low percentage in the second one. These two fields were being grown by one of Ft. Fairfield's leading seed potato firms. From Ft. Fairfield the party drove to Perth, N. B. noting the condition of the potato fields along the way. The train was taken at Perth for St. Albans, Vt.

On Sunday, July 31, some very fine Irish Cobblers grown from Prince Edward Island seed stock were rather carefully inspected and no evidence of mosaic was detected. The heat and accompanying drought throughout all of the sections mentioned has tended to reduce the set of tubers in all but the very early planted ones. Under these conditions copious rains at this time will only tend to produce overgrown tubers due to the light set.

A brief visit was made at the Vermont Experiment Station, Burlington, Vt. on Monday afternoon while enroute to East Corinth, Vt.

The decided drop in temperature which occurred Sunday night proved a welcome change.

(Wm. Stuart).

Bridgeton, New Jersey Notes. August 4, 1921.

On Tuesday Commissioner of Agriculture, E. S. Brigham, Mulholland of the Markets Division of the Vermont Department of Agriculture and the writer visited the potato and fruit farm of Mr. J. A. Dimick of East Corinth, Vermont. The trip was made by auto from Montpelier. Mr. Dimick heads a cooperative seed potato company serving in the capacity of grower and manager. A total of 80 acres of Green Mountain potatoes are being grown under his direction. This acreage is divided among a number of hill farms. The stock looked well and had been carefully rogued. Two strains are being grown, - one from Prince Edward Island and the other from Vermont. The Prince Ed ward Island strain seems to be a little more vigorous but does not promise to be more productive, at least on date of examination,

Mr. Dimick is an ardent advocate of the dust spray method of controlling fungous diseases and insect pests of the potato,

The apple orchard is expected to yield a thousand or more barrels of first class fruit.

Bridgeton, N. J. was reached Wednesday evening.

(Wm. Stuart).

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OFFICE OF HORTICULTURAL & POMOLOGICAL INVESTIGATIONS

AUG 13 1921

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Greeley, Colorado Notes. For the week ending August 6, 1921.

During the past week the weather has been quite warm, but the nights have been much cooler.

Some of the potato plots were irrigated on Monday, August 1, and the remainder are being irrigated today. Haying was finished on Thursday, August 4.

There is still considerable hay down throughout this section, but most of the second cutting is now in the stack. Buyers are offering from four to five dollars a ton for good hay, and it is believed that this price will not be increased at any time during the year. Many fields of early potatoes are being harvested at this time; the prevailing price is $1.15 per hundred. Shipments of early cabbage have been quite active during the past week - the price being $1.75 a hundred to the grower. About 30 cars of early cabbage are being shipped daily from northern Colorado.

(W. C. Edmundson).

Presque Isle, Maine Notes. For the week ending July 30, 1921.

Spraying operations were continued on our plats this week, also those of Dr. Schultz and Dr. Cook.

Monday the writer went through three lots of the Ball strain of Green Mountains in addition to roguing one half acre of Seedling 4240 which is being grown for us by Mr. Pat Powers. Very little disease was found in any of the material.

Professor Stuart arrived in town Monday night. Tuesday, Wednesday and part of Thursday was devoted to examining the material on our plats and roguing out diseased plants in our seedlings and varieties. Thursday afternoon fields were visited on the Caribou Road and around Parkers Siding. Very good stock of Green Mountains and Irish Cobblers were noted. Friday a trip was made to Washburn and Mapleton where some Green Mountains from Canada and several commercial fields, in addition to several lots of seed from our Seed Development plat, were examined.

Visitors from out of town this week were Mr. and Mrs. W.B. Hubbard of Fredericton, N. B., Miss Elizabeth Clark, East Corinth, Vt., Wm.Stuart, W. W. Gilbert, and Ernest Arkswater of Washington, D. C., Hal B.Fullerton, Medford, Long Island, N. Y., and E. A. McCallan, Director of Agriculture for Bermuda; also G. C. Cunningham of Fredericton, N. B.

Saturday the writer took in the car to Perth, Professor Stuart, Miss Clark, Dr. Cunningham and Mr. McCullam.

(P. M. Lombard).

Presque Isle, Maine Notes. For the week ending August 6, 1921.

Our Seed Development plat was sprayed on Monday. Monday and Tuesday this plat was rogued for the third time and very little disease

was found. Wednesday the Mapleton Farm Bureau Association visited the Farm, and part of the day was devoted to explaining the different lines of work to the members.

Thursday the writer took the train at Perth to visit the potato growing sections of New Brunswick. Dr. Schultz, Dr. Fulsom and Dr. Patch left Presque Isle Wednesday morning by auto for Fredericton, where they were to meet Dr. Cunningham. When the writer arrived at Fredericton, Dr. Cunningham and party had left for Newcastle.

Friday and Saturday were spent in visiting the Experimental Farms at Fredericton and commercial fields within a radius of 25 miles of this beautiful town. The drouth has been more severe in this section of New Brunswick than in Aroostook County, Maine. Notes were taken on the Variety Collection on the Experimental Farms, and several varieties of especial merit are to be added to our collection for study next year. A few varieties it is hoped will be of value to Dr. Clark for breeding work.

T. H. Esterbrook has a field of the McCain strain of Green Mountains which is very good. A good growth had been made and no disease was noted. Dr. Esterbrook also has 5 acres of Irish Cobblers which are very good for this year.

Mr. George Cavanaugh's farm was visited next where a field of a very high producing strain of Green Mountains was found to contain less than one per cent of mosaic.

The field visited next was that of John McCain, the Fountain head of the McCain strain of Green Mountains. Mr. McCain only grows three acres each year and has never used any commercial fertilizer, nor has he sprayed with bordeaux mixture until this year. Only barnyard dressing is used on this farm. Mr. McCain has practised seed selection for years but has never recognized any of the common diseases that the Aroostook farmer has to contend with. This may be because none of the common diseases are present on his farm.

The next field visited was that of Mr. John Hoban, who has some of the McCain stock in addition to several acres of a seedling developed from a seed ball of the McCain strain of Green Mountains. This seedling has merit in that it is a large yielder, however, the writer was not favorably struck with the stock. The plants grow very tall, are sparse in foliage and the vines are decumbent. The plants were free from disease and might assume a better habit growth during a normal year when there is plenty of rainfall.

Saturday a field of Triumph was inspected. This field contains the Wisconsin strain(Smith) and the Thibodeau strain from Grand Falls, N. B. On the whole the Thibodeau strain was the better; it having better color and more uniform size and was free from disease.

The field of Mr. James P. Harding, Upper Marysville, formerly of Monticello, Maine was visited next. Mr. Harding has carried with him the Aroostook customs to a great extent. He ridges his potatoes very high which has certainly been unfortunate this year. He has more mosaic in

his potatoes than any field visited. Very few farmers use commercial fertilizer. Mr. Harding uses a ton to the acre, another Aroostook custom. Mr. Harding does, however, succeed in producing a wonderful field of oats regardless of the season.

This section from Margaville on down to Majorville is one of the best farming sections of New Brunswick. Considerable trucking is done in this section. Fall frosts come late in October. Some live stock is kept but very few compared to what there should be. This section could be developed into a great dairy and orchard section. One large orchard was observed which had cost the owner very little. The hay between the trees has been cut every year and put into the barn, and it is not necessary to cultivate the orchard at all.

The writer went on to Bathurst Saturday night to meet Dr. Cunningham, Dr. Schultz and party.

The writer feels greatly indebted to Mr. Hubbard, Superintendent of the Dominion Experimental Farms, through whose courtesy and kind hospitality it was possible to see so much of Fredericton and the surrounding country.

(P. M. Lombard).

Wisconsin Notes. August 8, 1921.

At the close of our "Upper Wisconsin Potato Inspection Tour" at the Spooner Branch Station on August 6, it seemed apparent that the prospects for the potato crop in Upper Wisconsin ranged between 60 and 70 per cent of a normal crop.

Weather conditions have been favorable in several sections of the north and should these conditions continue favorable, the crop might be increased over the above figure. Attention should be called to the fact, however, that the danger of frost and late potato blight should be considered in the matter of additional losses.

Mosaic which seemed to be masked during the early season is beginning to show at this time. On July 25 it was impossible to make mosaic counts even in strains known to be affected. Careful examination will be made this week of the plots on the Spooner Branch Station.

Leaf hopper damage has been unusually severe in Wisconsin this season and early planted Triumph fields have been badly damaged.

(J. G. Milward).

New Jersey Notes. August 11, 1921.

Thursday and Friday, August 4 and 5, were spent in securing motion pictures showing the plowing and fitting of land, the broadcasting of commercial fertilizers, opening of furrows, sowing of fertilizer in row and the planting of second or fall crop potatoes on the farms of the Minch Bros. of Bridgeton, N. J. The harvesting and shipping of the early crop was also filmed. The photographic work was done by representatives of the Motion Picture Office of the Department.

The early crop of potatoes in southern New Jersey is generally poor. This is also true of the American Giant crop in Monmouth, N. J.

New York Notes.

Saturday, August 6, the writer attended the 6th annual summer meeting of the New York Cooperative Seed Potato Association. The field tour started from and wound up at Moravia, N. Y. About 125 persons in approximately thirty automobiles made the field tour, and nine selected fields, chiefly of Green Mountains, were inspected along the route. Dinner was served enroute at East Summerhill Church after which a short program was rendered. The program included remarks by Charles Huff, President of the Southern Cayuga Association; "Our Program for 1921-'22", by J. M. Hurley, Manager of the New York Cooperative Seed Potato Association; and "The Future of Potato Dusting", by Dr. M. F. Barrus, Ithaca, N. Y. A banquet served at the St. Matthews Parish Hall at Moravia, followed by a program ended the meeting.

While the plants in the fields inspected on the tour were generally free from disease and looked thrifty the set of tubers was poor.

Washington Notes.

The weather though somewhat cooler is still warm and dry and quite unfavorable to the potato crop.

It is planned to leave Washington the evening of the 11th for Spooner, Wisconsin, and Grand Rapids, Minnesota, where notes are to be taken on the per cent of disease in the various strains of certified seed included in the seed potato development work at these places. Upon conclusion of this inspection, points are to be visited in western Nebraska, Colorado and Wyoming.

(Wm. Stuart).

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WEEKLY POTATO BULLETIN

of the

OFFICE OF HORTICULTURAL & POMOLOGICAL INVESTIGATIONS

AUG 20 1921

The material contained herein is not for publication except by permission from the Office of Horticultural and Pomological Investigations.

Greeley, Colorado Notes. For the week ending August 13, 1921.

During the past week the weather has been quite favorable for the growth of potatoes in this section. On Saturday, August 13, there was a precipitation of 1.03 inches and on the next day 0.42 of an inch was recorded. It will not be necessary, therefore, to irrigate the plots this week.

Potatoes in this section continue to look very well and with moderately cool weather there should be an exceptionally good yield. Prospects for a good crop are also reported from the Western Slope.

Many fields of early potatoes have been dug during the past week. Prices have ranged from $2.00 to $2.50 per hundred, but the prevailing price has been about $2.15. A difference of from 25 cents to 50 cents per hundred has been made for the No. 2 grade. The early varieties that are being shipped are Bliss Triumph and Charles Downing. There seems to be a little better demand for the Triumph than for the Downing.

The cabbage market, which has been strong for the past few weeks, is reported somewhat weaker today.

There have been a number of visitors at the Station during the week, among them being Mr. H. P. Gould, of our Office, and Mr. C. M. Tompkins of the Colorado Agricultural College, accompanied by Mr. Plumb, Club Leader for Weld County. Messrs. Tompkins and Plumb are inspecting potato fields of this section for the purpose of seed certification. It is not known at this time just how many fields are eligible for certification.

Mr. Grant Wilson, President of the Colorado Potato Shippers' Association; Mr. Elmer Walter, one of the leading potato growers of Weld County; Mr. G. A. Meckstroth, Assistant Pathologist, of the Office of Cotton & Truck Disease Investigations, and the writer expect to leave Greeley on Tuesday the 16th for Scottsbluff, Nebraska, where they will join a tour of the seed potato section of western Nebraska. The trip will take about four days. Mr. Stuart of our Office probably will return with the party to Greeley.

(W. C. Edmundson).

Jerome, Idaho Notes. For the week ending August 13, 1921.

The weather the past week has been very favorable to all farming operations. The harvesting of grain is well under way with some farmers beginning to thresh.

We will have no water for irrigation purposes next week. This is not due, however, to a shortage of water. The object in view is to try and kill the moss in the canals.

A hail storm passed through this section the 4th of August doing considerable damage in some places, but we were fortunate in not being in its path. It is reported that grain, in some of the hardest hit places, will not be cut; others report a less damage.

Early potatoes are being shipped in quite a large quantity. The price today is $2.45 f.o.b. loading station. A number have been contracted for fall delivery at $1.00, - these prices being per cwt. Local price offered for wheat on August 12 was 70 cents per bushel. Some hay sales are reported at $3.00 per ton in the stack.

(W. G. Randolph).

Presque Isle, Maine Notes. For the week ending August 13, 1921.

The train for Bathurst was two hours late, so it was 3 o'clock in the morning when the train pulled in. The hotel accommodations here are a little better than nothing. Sunday morning I was unable to locate Dr. Cunningham and party. I found out later that they had gone on up the line Saturday night. It seemed inadvisable to wait in Bathurst until Monday afternoon for a train up the line somewhere. I found I could get a train for Moncton at 1 o'clock and probably make Prince Edward Island Monday. Monday morning it was raining hard. I wired Professor Johnson at Presque Isle, that I would meet him there Tuesday. A train left for St. John at 9:55 and reached Houlton at 9:00 P. M. The night was spent in Holton and I arrived in Presque Isle at 10:40 A. M.

In the afternoon I met Messrs Johnson, Peet and Hathaway representing the Seed Committee of the Southern Produce Exchange. Wednesday several of the best Irish Cobbler fields were visited. It was planned to attend the meeting of the Eastern Farm Bureau meeting in the afternoon but a horse race proved a bigger attraction to the members and the mee ting was called off.

On Thursday accompanied by Mr. Stratton, Sec'y.-Treas. of the Corinna Seed Potato Farms, and Dr. Fulsom, several Irish Cobbler and Green Mountain fields were inspected for disease and mixture.

Friday morning on account of rain the Seed Committee decided to take the Canadian Pacific train for St. John, N.B., going on Saturday for Sackville, N. B. and try and make Prince Edward Island Sunday.

A telephone call from Dr. Cunningham, Monday August 15, advises me to meet him August 21 at Charlo. It is planned to go up the St. John River August 18 and 19. I plan on taking the International Railway at St. Leonard at 12:30 and arrive in Charlo Saturday night.

Considerable rain fell during the past week in this section, in fact as much as fell during May, June and July. The temperature has been very cool.

A few cars of Cobblers have been harvested this season in Aroostock, the price being from $3.50 to $4.00 per barrel. Farmers are looking for from $4.00 to $4.50 per barrel at digging time.

(P. M. Lombard).

Wisconsin Notes. August 16, 1921.

Saturday, August 13, was spent at the Spooner Branch Station taking

notes on the several strains of Irish Cobbler, Triumph, Early Ohio, Green Mountain and Rural varieties being studied on the Station farm this season. It was very difficult to detect mosaic infected plants in fact it is questionable whether under present conditions any worth-while reading can be secured on the percentage of mosaic present in any given stock this season. It is only in the case of rather pronounced cases of mosaic that one can really be certain of his diagnosis. The peculiar seasonal conditions has so affected the growth and appearance of the foliage this season as to completely mask mild cases of mosaic infection.

The general condition of the plants on the Station grounds was found to be more satisfactory than had been anticipated. There is of course considerable foliage injury, due largely to what is now called hopperburn. The plants are badly infested with the potato leafhopper.

From present appearances it is going to be very difficult to secure an accurate reading on the relative merits of the various strains of potatoes that are on trial.

Minnesota Notes.

Monday was devoted to taking notes on the potato varietal strains under test at the North Central Experiment Station at Grand Rapids, Minn. While the Irish Cobblers, Triumphs and Early Ohios, owing to earlier planting are in a more advanced stage of maturity at this point than at Spooner, the Green Mountains and Rurals were somewhat greener due to less injury from leafhoppers. Examination of the plants with a view to ascertaining the tuber set showed that the set was normal. The yield of early varieties will, however, be materially reduced owing to the premature ripening of the plants. This applies more particularly to the Triumph and the Early Ohio and to a much lesser degree to the Irish Cobbler. With favorable growing conditions during the next four weeks the Green Mountains and Rurals should produce a nearly normal yield.

The behavior of a Nebraska strain of Triumphs from seed grown at Grand Rapids in 1920 is very interesting. Doubtless most of you know that Western Nebraska Triumph seed stock is much later in maturing than that grown in other northern sections such as Minnesota, Wisconsin or Maine even when planted side by side in the South; it has not, however, come to the writers attention that this acquired character is projected into the second generation of seed stock. Its behavior this year clearly indicates, that this influence still persists.

Monday evening was spent with E. P. Gibson, County Agent of St. Louis County at Duluth. Mr. Gibson and his Farm Bureau supporters are arranging for an open-to-the-world potato exhibition to be held in Duluth, October 26-28, 1921. Over $1500.00 in cash prizes will be offered and it is expected that the liberal awards offered will attract many exhibitors.

(Wm. Stuart).

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WEEKLY POTATO BULLETIN

of the

OFFICE OF HORTICULTURAL & POMOLOGICAL INVESTIGATIONS

AUG 2 7 1921

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Greeley, Colorado Notes. For the week ending August 20, 1921.

During the past week the weather has been mostly cool and cloudy, with a few very warm days.

On Tuesday, August 16, the writer accompanied by Messrs E. Walter, E. Rea Couzens, and G. A. Meckstroth, left for Scottsbluff, Nebraska, to join a potato tour of western Nebraska in charge of Mr. H. O. Werner of the State Department of Agriculture. Wednesday, the 17th was spent in an inspection of the fields in the irrigated section. It was observed that dry-land seed seemed better adapted to that section than seed from irrigated districts; also that good strains of potatoes nearly always proved their superiority. A visit was made to the demonstration plots on the farm of Peter Janssen, north of Morrill, Nebraska, where Mr. Werner is conducting experiments. Here also the dry- land seed showed a better stand with stronger plants and less disease. In the afternoon short talks were given at the Scottsbluff County Experiment Farm and an inspection was made of the potato experiments. Mr. Stuart, of the Office, joined the party at this point.

On Thursday the party motored to Kimball, Nebraska, where a short program was given, and later in the day fields of dry-land seed potatoes were inspected. Among these were the fields of Mr. G. A. Forsling and Mr. August Gadeken. The party returned to Greeley at noon, Friday, August 19. In the afternoon the writer conducted Mr. Stuart over the potato plots at the Station.

Saturday, August 20, was spent in inspecting fields of potatoes in the vicinity of Greeley. One field was found to be affected by early blight, serious damage having been done by the disease. Mr. Stuart and the writer left in the afternoon of August 21 for the San Luis Valley, Eagle, and Carbondale potato districts.

August 30 and 31 and September 1 have been set aside as special Visitors' Days at the Station, and it is hoped that many growers and others interested in potato growing will inspect the experiments.

Potatoes are selling today at $1.60 per hundred.

(W. C. Edmundson).

Presque Isle, Maine. For the week ending August 20, 1921.

The weather for the past week has been cold, with high winds and considerable rain. Grain harvesting has been greatly delayed. On Aroostook Farm precipitation has been recorded for ten days to date, the amount ranging from .02 inches to 1.12 inches, and a total precipitation to date of 4.89 inches. The total precipitation in April was 1.76 inches, May 1.63 inches, June 1.58 inches, and for July 2.49 inches.

Our experimental plats have been rogued for disease again and as usual at this stage of growth considerable streak disease was found. No late blight has been observed on Aroostook Farm, even on the unsprayed plat, however, spraying with bordeaux mixture continues.

A few cars of Irish Cobblers were shipped this week, the price to growers ranging from $3.75 to $4.00 per barrel.

(P. M. Lombard).

Nebraska Notes. August 20, 1921.

On arrival at Scottsbluff, Nebraska, Wednesday afternoon, I was driven over to the experimental farm some eight miles away where those participating in the Scottsbluff County potato field day meeting were congregated for the purpose of listening to a short program after which the experimental work under way on the Station farm was very effectively explained to the visitors by Professor Werner and Mr. Holman, Supt. of the experimental farm. Prof. Werner has some interesting work relating to the deterioration of certain varieties of potatoes when grown under irrigation. The comparisons shown between dry-land seed and the same strain grown under irrigation for one, two, three and four year periods was quite striking, and so far as the particular varieties studied are concerned the results were so conclusively in favor of dry-land seed as to leave no doubt in the minds of those present as to its superiority for seed purposes.

Some interesting strains of Triumphs were noted. Several rotation methods are being tested out by the farm superintendent with potatoes. The undesirability of growing potatoes continuously on the same plot of land was clearly indicated by the appearance of theplants. The lasting effect of applications of farm yard manures to the land as expressed in crop yields indicates that in a five-year rotation manure applied to the crop following potatoes does not appear to contribute any plant food to the next crop of potatoes four years hence. These experiments and many others proved of such great interest that it was after six o'clock before the party departed for Scottsbluff.

On the following day those who had planned to attend the field meeting in Kimball County drove over to Kimball in the forenoon. The afternoon was devoted to a short program and the visiting of several farms on which dry land Triumph seed potatoes were being grown. Owing to a scant rainfall throughout the growing season the plants were found to be rather small as compared with those of the same strain grown under irrigation. To the uninitiated person in dry-land farming it would seem as if the prospect for even a moderate crop was not very encouraging. This viewpoint was not, however, shared by those accustomed to dry-land farming. In fact the growers were quite confident that they would harvest a good crop.

As a rule the potatoes that are being grown under irrigation in both the Kimball and Scottsbluff sections promise a good yield.

Messrs. Edmundson, Meckstroff, Walters, Couzens and the writer drove from Kimball to Cheyenne Thursday evening and reached Greeley Friday forenoon.

Greeley Notes.

Friday afternoon, August 19, was spent at the Greeley Potato Experiment Station inspecting the several lines of investigation work being carried on at that point.

Excellent Rural and Pearl stock is being grown this season. The general conduct of the work and the quality of the stock was very gratifying to the writer. As usual some of the seedling varieties under trial are showing considerable disease and lack of vigor, but there are a sufficient number of good ones to make the further testing of seedlings desirable.

Saturday was devoted to inspecting commercial potato fields. For the most part the crop is looking good and gives every evidence of making a good crop. The growers in the Greeley district are looking forward to a good crop of potatoes and a fair price. A field was visited yesterday enroute to Greeley and another today in which there was a considerable per cent of fusarium and rhyzoctonia. In one case poor seed had been used while in the other good seed had been planted but the plants had been subjected to indifferent cultural care. These two instances furnish striking examples of the folly of planting poor seed, or of expecting a satisfactory crop from good seed when the resultant plants are subjected to unsatisfactory growing conditions such as poor preparation or cultivation of the soil, or careless irrigation. The extent to which such undesirable practices may lessen the yield from good seed or may predispose the plants to the attack of fungous diseases in the soil is directly correlated with the climatic conditions prevailing during the growing season and more particularly during the period of tuber formation. If dry hot weather prevails the vigor and consequent resistance of the plants to disease is much more quickly impaired under improper cultural conditions than when given the best of care.

The weather during the past two weeks has been favorable to the potato crop in the Greeley district and the growers do not now feel any particular alarm over the prospect of an attack of blight. The term "blight" in this section does not refer to either the early or late blights, but to a diseased condition of the plant brought about through an attack of fusaria or rhyzoctonia fungi. Frequently both diseases are responsible for a plant's blighting.

The San Luis Valley is to be visited on Monday and Tuesday and the Carbondale and Eagle districts of Colorado on Wednesday and Thursday.

(Wm. Stuart).

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Greeley, Colorado Notes. For the week ending August 27, 1921.

During the past week a precipitation of 1.28 of an inch of rain was recorded. The daily temperature was high, although the nights were comparatively cool.

As stated last week, Mr. Stuart and the writer left for the San Luis Valley on the afternoon of the 21st. The following day was devoted to an inspection of potato fields in company with County Agents Hyatt and Sauder, of Monte Vista and Center, respectively. In most of the fields leaf roll was present, causing growers a good deal of anxiety. If the weather remains favorable, it is believed that this disease will not cause any serious damage, otherwise there may be quite a reduction in the yield. From the San Luis Valley we proceeded to the Carbondale district, but heavy rains and washouts obliged us to change our plans, making it impossible to visit the Eagle section. Thursday, August 25, was spent at the Lou D. Sweet ranch. Mr. Stuart returned to Greeley, and on Saturday, August 27, he and the writer visited potato fields and commission houses. A number of growers in this section have become rather anxious about their potato crop and fear that the yield may be cut seriously as a result of blight, but from the appearance of the fields visited on Saturday, one would be led to believe that the Greeley district will still have a bumper crop as previously predicted.

In the Greeley district No. 1, potatoes are selling today at $1.60; on the Western Slope at $1.50 per hundred.

(W. C. Edmundson).

Presque Isle, Maine. For the week ending August 27, 1921.

Tuesday, August 23, the writer left Presque Isle for Van Buren, accompanied by Mr. Bacheldor of the University of Maine, who is carrying on experimental work this summer for the Bureau of Entomology.

The first field visited was that of Mr. Fred Parent, located at Hamlin. On this field, Mr. Parent has planted 350 barrels of Triumph, 125 barrels of Green Mountain, and 115 barrels of Irish Cobbler. All three varieties had made excellent growth. The Triumph contained about twelve per cent of Mosaic. Eight barrels of Green Mountain from the northern part of New Brunswick were free from any disease, but unfortunately they were planted through the middle of the field of Triumph. The balance of the Green Mountains were about equally divided between Prize and Green Mountains from New York State, both containing a large percentage of Mosaic. Aphids were very abundant on all varieties.

The next field examined was that of P. A. Cyr and the adjoining field of Triumph belonging to Dennis Morneault. Mr. Cyr's Triumph, although still

seven per cent of Mosaic was present.

The next stop was at Frenchville where we remained over night. The next morning we looked at 1-1/2 acres of Triumph belonging to Joe Collins. The aphids were abundant and about 80% of the plants had Mosaic. The next field inspected was 6 acres of Triumph on Mr. Pontif Rosignol's farm. The plants were large, about 4% of Mosaic was found, and late-blight had a good start. Neither Mr. Rosignol nor his neighbor, Mr. Collins, spray with Bordeaux.

We then inspected 8 acres of Triumph on Mr. Joe Pelletier's field located on the Madawaska (Back Settlement) road. About 75% of the plants were dead from aphids. The plants were too far gone to determine the percentage of Mosaic. A field adjoining belonging to Mr. Dufour, contained Triumphs which were 100% dead from aphids.

Seven acres of Green Mountains on Mr. Peter Dionne's farm were next inspected. Mr. Dionne has grown this same strain of Green Mountains on this farm for fifteen years. About 5% of Mosaic was found and an abundance of aphids. This field is very well isolated from neighboring fields with wild vegetation on three sides.

Three acres of Triumph, 2 acres of Green Mountain, and 5 acres of Early Rose were inspected on Mr. Elio Dionne's farm. The Triumphs were 75% Mosaic and aphids were plentiful. The Green Mountains were 15% Mosaic. Mr. Dionne has grown the Early Rose for thirty years. They were about 30% Mosaic and about 4% mixture of the Dakota Red variety. Enough healthy plants were selected and harvested to make a half bushel. These plants which were purchased from Mr. Dionne will be grown in our seed plats next year. Mr. Dionne also has 5 acres of Snowballs, a variety which is grown to a limited extent in this section. We find it around Presque Isle and Caribou under the name of Hustlers and classify it as belonging to the Up-to-Date class.

We next proceeded to St. Agatha where some poor and several good fields were inspected. Five acres of Green Mountain on Mr. Joe Michaud's farm were found to contain some mixture and carried 75% Mosaic. One acre of Green Mountains planted early on Mr. Fortenau Chasse's farm showed 100% Mosaic.

Seven acres of Green Mountains on Mr. Thomas Albert's farm showed only 7% Mosaic. Stock selected from this strain two years ago by County Agent, Mr. Scribner, contained only 2% of Mosaic. From this selected stock about a half bushel of seed was dug for trial in our experimental plats. Not only is the stock fairly free from disease, but it is a good yielder and produces an abundance of potato balls. It is hoped that some breeding work can be done with this strain of Green Mountains.

Two acres of Triumph on Joe Bouche's farm in the Sinclair settlement showed very bad injury from Tip burn and early-blight and about 50% Mosaic.

Three acres of Triumph on P. Daigle's farm at Guerrette's plantation

were all down from aphids, with the exception of Green Mountain volunteers.

Five acres of Irish Cobbler on T. J. Johnston's farm in Stockholm showed bad injury from early-blight and some Black Leg.

Fourteen acres of Green Mountains on Mr. Gustav Dahlberg's farm in New Sweden showed 50% Mosaic. One other field of Green Mountains and two fields of Irish Cobbler showed bad injury from early-blight.

General Summary of the Trip.

In general, the best stock containing the least amount of Mosaic was found on the well isolated farms.

Disease free stock (Mosaic disease) is not due to the absence of aphids or other disease-carrying insects.

There is considerable seed stock with a small percentage of Mosaic disease to be found in these back settlements on well isolated farms where no attempt has been made to rough out disease or practice seed selection.

Injury from Tip Burn and early-blight this year is quite serious on most early varieties.

Aphids, flee beetles, and tarnish plant bugs are very abundant.

The number of spraying outfits in this section has increased 100% during the last two years.

(P. M. Lombard).

Colorado Notes. August 29, 1921.

Monday, August 29, was spent in the vicinity of Monte Vista and Center, located in the celebrated San Luis Valley district of Colorado. Monte Vista is in Rio Grande County and Center is in Saguache County. C. D. Hyatt, County Agent of Rio Grande, claims that his county has 18,000 acres of potatoes, and that Saguache has 4,600, making a total of 22,600 in these two counties. Through the courtesy of Mr. Hyatt, it was possible for Mr. Edmundson, who accompanied me on this trip, and myself to obtain a good general idea of the condition of the potato crop in this section. It was also possible to meet W. O. Sander, County Agent of Saguache County, and to examine some potato fields in his territory. The Brown Beauty is the principal variety grown in this section. Triumph and Early Ohio are grown to some extent for an early crop. The former variety is the most extensively grown. The Triumphs were being harvested and as a rule were giving a light yield on account of poor stand and diseased stock. Most of the fields were running from 40 to 60 sacks per acre with an occasional one reaching 100 sacks.

The general condition of the potato crop in the San Luis Valley can only be regarded as fair. A large proportion of the early planted fields of Brown Beauties are showing a large amount of the German type of leaf-roll or

what the growers in the West term "blight." The seriousness of this attack depends very largely upon the character of the weather prevailing during the next two weeks or more. As a rule the plants have made a good set of tubers and if not too seriously injured by the blight, they will be able to make a good crop. Cool weather will retard the leaf-roll while high temperature conditions will favor its development. Late planted fields, say from June 1 to 10, show only an occasional leaf-roll plant. As might be expected the growers in this section are anxiously watching the progress of the blight. A good crop of potatoes is a vital necessity to the growers in order to enable them to retrieve their losses of the previous season. The Falk potato flour mill consumed 65 carloads of second grade potatoes last season. The company has a 10-year contract with the growers to take their "seconds" at 60¢ per hundredweight. The mill or factory is located at Monte Vista. Several local potato exchanges have been organized and are, for the most part, employing the North American Fruit Exchange to sell their product. A branch office of this company has been opened at Monte Vista. The largest individual grower in this section is H. A. Matthias of Monte Vista, who has 400 acres of potatoes this season.

Owing to floods, landslides and other causes contributing to poor railroad service, it was not possible to visit the Carbondale district until Thursday the 25th. Mr. L. D. Sweet joined us at Glenwood Springs Wednesday afternoon and through his courtesy and that of his manager, Mr. Simpson, we were driven from Glenwood Springs to the Sweet ranch Thursday forenoon and returned in time to take the 4:35 p. m. train to Denver. Some excellent Russet Burbank and Irish Cobbler potatoes were noted in the 18-acre seed plot on the ranch. The field stock, consisting of some 75 acres of Russet Burbank, furnished a fine demonstration of the value of good seed stock. Some of the field had been planted with a superior strain of seed from the Eagle district while another portion had been planted from a well rogued seed plot of a rather inferior stock, and the balance with the general run of stock. The appearance and general behavior of the plants is in accord with the character of the seed used. Mr Sweet expects to have sufficient high class seed stock next season to plant his whole acerage. The roguing of the seed plot is being carefully attended to by Mr. Ernie Edgerton, an employee of the ranch, who is taking a very keen interest in the development of high grade seed stock. A thorough search of the Carbondale district is now being made by Mr. Edgerton for the purpose of locating some high grade strain of the Peachblow potato.

Greeley was reached Friday evening and Saturday was spent in meeting some of the business men and growers. One ranch was visited for the purpose of inspecting unusually fine fields of Pearls and Rurals. It was found that the supposed field of Rurals only contained a few scattered plants of this variety. The whole field has been planted with the Up-to-Date, a variety wholly unsuited to Greeley conditions. This mistake will cost the grower, in our judgment, at least $1000.00, due to difference in yield and quality of stock of the two varieties in question. It furnishes a good illustration of the necessity of more careful attention being given to the trueness to name of potato varieties.

(Wm. Stuart).

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Greeley, Colorado. For the week ending September 3, 1921.

During the past week the nights have been exceptionally cool, but the days have been hot for this time of the year.

Most of the potato plots were irrigated on Friday and Saturday, September 2 and 3. This will be the last irrigation of potatoes for this year.

August 30 and 31 and September 1 were visitors days at the Station. The attendance was good and potato growers showed a great deal of interest in the various experimental plots.

Some Fusarium has appeared in the potato fields in the Greeley district, causing growers and dealers considerable anxiety. It is believed however, that no serious damage has been done thus far.

The second cutting of hay at the Station is being stacked today. Hay is selling at $5.00 per ton at the present time and there is little hope that a better price will be offered. Potatoes are selling today at about $1.40 per hundred for No. 1's.

(W. C. Edmundson).

Presque Isle, Maine. For the week ending September 3, 1921.

The weather for the past week has been rather warm and dry with cool nights.

Most of our experimental plats were sprayed again this week with Bordeaux mixture. Very little late blight has shown up to date in the commercial fields. On Aroostook Farm even in our unsprayed plat no late blight has been found.

We have harvested some of the hill selections, however, the bulk of our material is still quite green and, with the exception of the Irish Cobblers and Triumphs very little will be dug until after the Fair or about September 12.

At the request of the County Agents and the President of the Farm Bureau I accompanied a party of potato growers to Fredericton Saturday to inspect some of the Green Mountain seed stock. We went to Houlton Friday afternoon and got an early start Saturday morning. We arrived in Fredericton about noon. After lunch Professor G. C. Cunningham, Pathologist for the Dominion joined the party which proceeded to the farm of Mr. Estabrook about 9 miles south of Fredericton. Three fields were examined. These potatoes were the McCain strain of Green Mountains. Although only two rains have visited this section since the fields were planted, the vine growth was quite large and no disease was found. A large number of hills were pulled and the average of marketable tubers was found to be nine. The party was well pleased with the appearance of the stock, and the County Agent informed me that he expected five or six carloads of this stock would be purchased for distribution in Aroostook this fall through the Farm Bureau.

Recent visitors to Aroostook Farm were Mr. S. Sorenson, Danish Legation, Washington, D. C., Dr. Arthur de Jaczewski, Petrograd, Russia, and Professor N. I. Vavilov, Petrograd, Russia.

(P. M. Lombard).

Wyoming Notes. September 9, 1921.

The potato flour and starch factory of the Columbian Carbon Company located at Cowley, Wyoming, was inspected by the writer Monday morning, August 29. This is one of the most completely equipped factories of the kind in this country. The factory proper is 50 X 250 ft. in size, two stories high. The storage house adjoining is 50 X 150 ft. in extent. The potato storage bins are so constructed as to permit of the removal of the tubers from below by a flow of water and a conveyor. All operations from the unloading of the potatoes from car or wagon to the placing of the starch on the drying trays is automatically performed by machinery or by water flow. The electricity used in operating the machinery and the heat used in drying the flour and starch is the waste energy resulting from the consumption of natural gas in the manufacture of carbon black.

The development of a profitable market for potato flour and starch, is one of the most serious problems confronting the Columbian Carbon Company.

The afternoon of the 29th was spent inspecting the Powell potato district. Powell, some 18 miles distant by auto from Cowley, is located on the Cody branch of the C. B. & Q. railroad. Mr. W. W. Watson of the Louis Potato Company of Powell claims that some 2053 acres of potatoes are being grown in the vicinity of the town. The Russet Burbank is most extensively grown in this section. Through the courtesy of Mr. Watson it was possible to inspect a number of fields near Powell. Some very promising fields were noted but examination of occasional plants throughout the field indicated a light set and high percentage of knobby tubers.

Minnesota Notes.

Wednesday, August 31 was spent at University Farm, St. Paul, Minn. Several of the Department men were interviewed and some interesting information was secured relative to the potato crop in the State. It was thought by those most closely in touch with the situation that the potato crop was below normal.

Wisconsin Notes.

Thursday forenoon, September 1, was spent in consultation with Prof. Milward at Milwaukee, Wisconsin relative to the harvesting of the seed potato development plots located at the Spooner Branch Station, Spooner, Wisconsin. It was agree d that, owing to the unfavorable weather conditions that have prevailed throughout the tuber development period and the heavy infestation of leaf hoppers, it would be inadvisable to save seed from the increase plots with the idea of disseminating it among growers in the State. The probability is that all the stock grown

this season from the several strains under test will be discarded. It is proposed to begin harvesting the plots about September 26.

Indiana Notes.

Friday and Saturday forenoon was spent at Purdue University in looking over some experimental work designed to determine the resultant injury to the potato plant by the potato leaf hopper and in discussing potato problems with Station and college men.

Washington Notes.

Warm weather still prevails in Washington. Local showers have been of great benefit to the growing plants in the favored areas.

The mail accumulation awaiting my return to Office has very largely been attended to and during the next few days it is hoped that many details pertaining to the completion of the season's outdoor activities may be arranged for.

A visit to Arlington Farm this forenoon furnished an opportunity for the securing of our first notes on the late or fall crop of potatoes planted July 19. To our pleasant surprise the most of the varieties and seedlings planted had given a good germination and had made a good growth. At the present time the soil contains an abundance of moisture and, should normal autumn weather prevail, there ought to be a good crop of tubers.

Yesterday (Sept. 8) the Crop Estimates Division of the Bureau of Markets released their September 1 estimate of the potato crop of the United States. This report shows a slight increase (approximately 7,000,000 bushels) over that of the August 1 report, or a total of about 323,000,000 bushels.

(Wm. Stuart).

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WEEKLY POTATO BULLETIN

of the

OFFICE OF HORTICULTURAL & POMOLOGICAL INVESTIGATIONS

SEP 17 1921

The material contained herein is not for publication except by permission from the Office of Horticultural and Pomological Investigations.

Greeley, Colorado Notes. For the Week ending September 10, 1921.

For the past week the weather has been exceptionally cool. A number of plots of potatoes were rogued during the week. The alfalfa that is to be crowned this fall is being irrigated today. This is the plot on which potatoes will be planted next year.

Plans have been made to dig the Triumph plot on Wednesday of this week. A number of growers who visited the Station during Visitors' Week requested that they might be notified of the time of digging this variety so as to enable them to see the tubers at harvest time. A notice will be inserted in the local paper giving the date of digging.

The writer attended a potato growers' meeting on Friday at the County Court House, the purpose being to discuss grading of potatoes. As Mr. Allewelt, Director of Markets for this State, was not able to come to Greeley it was decided to meet again some time this week or whenever Mr. Allewelt can be present to explain the grades.

Next week Weld County will hold its annual fair. There is being prepared by this Office an exhibit of potatoes in which all the groups will be represented, with the aim of making it as educational as possible.

Many of the fields are showing considerable Fusarium wilt, although in many cases there is already a fair set of merchantable tubers.

During the past week No. 1 have been selling for $1.50; some extra choice lots have brought $1.60 per hundred. No. 2 have been selling at $1.10 to $1.35. It is expected that there will be fewer No. 2 potatoes when the late crop is harvested than was the case with the early crop.

(W. C. Edmundson).

Presque Isle, Maine Notes. For the week ending September 10, 1921.

The weather for the past week has been fair and warm with the exception of Tuesday when it rained.

Very little harvesting was done this week because of the Northern Maine Fair which continued from Monday throughout the week. This Fair is held the first week in September every year in Presque Isle. The attendance some days was as large as 35,000 people. The exhibits of live stock, poultry, farm produce and farm machinery were unusually attractive this year and the Horse Trotting probably excelled anything seen in this County.

The potato exhibit was larger and better than ever. Premiums offered by eight different fertilizer companies for the best exhibit of potatoes consisting of one peck each of three different varieties raised on each brand of fertilizer, brought out material in competition for these premiums which equaled all other material exhibited.

Dr. Clark, Professor Dudley, State Horticulturist, and the writer had the pleasure of judging the potatoes this year. With the exception of one chronic kicker all were apparently satisfied with the decisions of the judges. There still seems to be a rather vague idea on the part of those exhibiting material of just what goes to make up a plate of exhibition stock. Suggestions by the judges were made to the Secretary of the Association and it is hoped that some helpful suggestions to aid those entering material for exhibition will be printed in the Premium List another year.

(P. M. Lombard).

Washington Notes. September 16, 1921.

The weather continues warm and dry. Except in a few restricted areas the potato crop in this vicinity has suffered considerably from lack of moisture.

Conflicting reports as to the extent of the crop in certain sections are being received daily. The New Jersey fall crop of potatoes is said to look quite promising. When noted last week they were in full bloom and the ground was said to contain sufficient moisture to insure a good growth of plants.

According to the Bureau of Market reports the carlot movement of potatoes is gradually increasing. The car movement by days was as follows: Sept. 7, 480; Sept. 8, 621; Sept. 9, 735; Sept. 10, 882; Sept.11 (Sunday) 40; Sept. 12, 690; Sept. 13, 892; Sept. 14, 988.

Notwithstanding this rather heavy movement the f.o.b. price of shipments has continued remarkably steady.

Wednesday quotations on the Washington market were as follows: New Jersey No. 1 Giants 150 lb. sacks $4.00 to $4.25; round whites No. 1, $5.00 to $5.25 per 150 lb. sacks.

(Wm. Stuart).

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of the

OFFICE OF HORTICULTURAL & POMOLOGICAL INVESTIGATIONS

SEP 2 4 1921

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Greeley, Colorado Notes. For the week ending September 17, 1921.

During the past week the weather has been generally fair, with cool temperatures at night. On September 18 a precipitation of 0.19 of an inch of rain was recorded.

On Thursday the Triumph potatoes were harvested. These included the Smith strain from Wisconsin, as well as the Gus Forsling and several other promising strains. A notice appeared in the local paper announcing the time of this harvest, and about fifty farmers and twenty high school agricultural students came to see these potatoes dug. They have not been graded and weighed, but it is known that some of them produced about 375 bushels to the acre. The Irish Cobbler and Early Ohio were also dug about the same time.

At the request of growers a number of visits were made to potato fields in the vicinity of Greeley to advise in the matter of selecting seed potatoes from their fields. Most of the fields contain a large percentage of mixture, as is the case quite generally throughout this district.

During the past week No. 1 potatoes have been selling for $1.50 per hundred. The harvest of the late crop in this section probably will not begin until some time in October; the time of digging depending largely on the appearance of frost.

(W. C. Edmundson).

Jerome, Idaho Notes. For the week ending September 17, 1921.

The weather the past two weeks has been quite cold for this season of the year. The thermometer falling as low as 24 degrees F. on the 12th, and we have had heavy frosts every night since.

Threshing is almost done in this section with some fine yields reported. One notable of mention is a small plot of wheat of certified stock, consisting of 5.17 acres, making 101 bushels per acre.

Potato harvesting has begun in this section with fair yields and a good quality reported.

Irrigation water will be turned out of the canals today, although stock water will be allowed to run for the next week.

According to estimates released this week, the apple crop this year on the tract will amount to about 50,000 bushels of the finest quality ever grown on the tract. Sugar beets are showing fine at this season; the estimated average yield is 14 tons per acre.

Jerome County will hold its annual Fair the 20th, 21st. and 22nd. of this month and from present indications it will display one of the largest and best agricultural and live stock exhibits of the State this year.

(W. G. Randolph).

Presque Isle, Maine Notes. For the week ending September 17. 1921.

The weather for the past week has been cool and ideal for harvesting potatoes. Monday it rained so operations did not begin until Tuesday. On Aroostook Farm we harvested the Scotch Collection, the Hill Selections, South American Collection, Maturity Experiment, Fertilizer Experiment, Storage Experiment with Irish Cobblers, 1920 Seedlings, all but 30 of the 1919 Seedlings, and the Cobblers in the Seed Development work.

We have not been favored with a frost to date and the bulk of the material yet to be harvested is still very green.

The potato market appears to be plugged and the price dropped off during the week from $3.00 per barrel to $2.25. A large amount of the material harvested during the past week was rather green and for this reason dealers hesitate to store it.

Mr. B. E. Brown from the Office of Soil Fertility Investigations has been in town all the week superintending the harvesting of his fertilizer plats. Director Morse and Dr. Bartlett of the Maine Agricultural Experiment Station visited Aroostook Farm this week.

(P. M. Lombard).

Grand Rapids, Minn. September 21, 1921.

Since our arrival here Monday noon it has rained more or less steadily until this afternoon. It now looks as if the weather was settled for a few days at least.

The precipitation this month up to and including the 20th has been 2.66 inches.

Plans have been made to begin harvesting the seed plots tomorrow morning.

The delay due to the rainy weather has afforded an opportunity for a complete overhauling of the collapsible slat bushel crates. Some 35 of the crates were in such a bad state of repair as to be unusable. In the absence of a supply of spare slats, top rails, and runners it was necessary to take two crates apart in order to furnish the necessary material to replace broken parts in the remainder. As it was our first attempt at removing the corner wire fasteners the work progressed rather slowly at first, but with a little experience and some experimenting the complete dissembling and subsequent assembling of the parts of a crate became a mere matter of routine. The experience gained has convinced me that the use of adjustable slats that can be inserted in place without removal of corner wire fasteners are not desirable except as a makeshift proposition,

It is impossible to estimate the length of time required to harvest, sort, and weigh the trial lots of potatoes on the Station grounds. If the weather remains fair and the number of helpers furnished are sufficient the work may be completed this week.

The seed plots at the Spooner Branch Station, Spooner, Wisconsin are to be harvested next week.

(Wm. Stuart).

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WEEKLY POTATO BULLETIN

of the

OFFICE OF HORTICULTURAL & POMOLOGICAL INVESTIGATIONS

OCT 1 1921

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Greeley, Colorado Notes. For the week ending September 24, 1921.

During the night of September 20 a severe frost killed the potato vines on the Station farm. A few growers in the vicinity state that their vines were only partially killed. Since that time the weather has been very warm. Most of the growers probably will begin digging their late-crop potatoes about next week, while the Downings are being dug at this time. Some hand digging will be done at the Station the latter part of this week.

The Weld County Fair held last week was well attended; there were many excellent exhibits. Many of the dry-land sections prepared exceptionally good exhibits of agricultural products. The H. & P. exhibit was shown jointly with that of the Office of Cotton & Truck Disease Investigations. Doctor MacMillan exhibited jars containing potatoes and vines showing diseases that are common in the Greeley district, while the H. & P. exhibit consisted in a display of the different groups of potatoes, all of the groups but one having been produced on the Station farm.

During the past week the potato market has been a little weaker; No. 1 potatoes selling for $1.40 per hundred.

(W. C. Edmundson).

Jerome, Idaho Notes. For the weekk ending September 24, 1921.

The weather for the past week has been fair with the exception of Monday when we were visited by a severe wind storm which did quite appreciable damage throughout the vicinity, especially to the apple crop just ready to pick, and to alfalfa seed crops which were cut and still in the field.

The potato crop this year likely aggregates in the neighborhood of 1200 acres. The yield is not going to be as large as expected sometime ago. This is attributed to the fact that the seed planted in the spring was below the average quality. An average of 100 sacks per acre is estimated.

(H. H. Forbes).

Presque Isle, Maine Notes. For the week ending September 24, 1921.

The weather for the past week has been fair and cool.

The market price to growers has been about the same as last week,- $2.00 to $2.25 per barrel.

A good many farmers have finished harvesting Irish Cobblers and have begun on the Green Mountains. A killing frost Wednesday night has helped harvesting a great deal in that the foliage which was very green was killed and next week the late varieties will be in excellent condition to harvest.

Irish Cobblers are running very large this year. The set was limited to 4 or 5 tubers per plant due to the drought early in the season.

The moisture and temperature conditions for the past six weeks have been ideal for the growth of tubers which has resulted in a large crop of oversized potatoes. Some very large yields have been reported this season, and a crop of 150 barrels per acre is not uncommon.

We have about another week's work of harvesting on Ancostook State Farm, including two days work for Dr. Cook. About a day and half will finish up the Seed Development work on the Savage field.

(P. M. Lombard).

Grand Rapids, Minnesota. September 27, 1921.

Favorable weather permitted us to begin digging the experimental potato plots on the North Central Experimental Farm Thursday forenoon. A broken shovel blade on the digger arrested operations Friday afternoon and Saturday. This delay enabled me to catch up with the sorting and weighing and permitted the completion of the work Monday forenoon.

The unfavorable weather that prevailed during the period of tuber formation was reflected in the yields secured.

Triumph yields ranged from 110 to 158 bushels per acre; Irish Cobblers 171 to 206.5; Early Ohio 164 to 189; Russet Burbank 150 to 168; Green Mountains 167 to 213.7 and Rurals 150.7 to 178 bushels. Had the season been a favorable one the yield would have been at least 40 per cent greater.

The quality of the stock for eating purposes is excellent as it is well matured and handled with but little injury from bruising and skinning As the stock went into the storage house in excellent condition there should be very little shrinkage during the storage period.

Spooner, Wisconsin.

Harvesting operations were begun at the Spooner Branch Station this morning. The 13 lots of Rurals have been harvested, sorted, weighed and stored and a beginning made on the 15 Green Mountain lots.

The same general effect from the heat and drought that prevailed during July was noted in the yield of the Rurals. The yields ranged from 89 to 115 bushels per acre. Under favorable conditions these yields should have been at least 100 per cent better.

The stock is well ripened and comes out clean and bright.

Professor Milward has wired that he will join us tomorrow.

(Wm. Stuart).

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of the

OFFICE OF HORTICULTURAL & POMOLOGICAL INVESTIGATIONS

OCT 8 1921

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Jerome, Idaho Notes. For the week ending October 1, 1921.

During the past week the weather conditions have been fairly favorable for farm operations.

We have finished stacking the third crop of hay, and have commenced harvesting the beans.

The soil is quite moist and fall plowing is being pushed while conditions are favorable.

We will harvest the potatoes the early part of the coming week.

(Harry H. Forbes).

Presque Isle, Maine Notes. For the week ending October 1, 1921.

The weather for the past week has been generally fair and rather warm.

Hauling continues heavy and prices range from $1.75 for Cobblers to $2.00 for Green Mountains per barrel.

We finished harvesting the experimental plats on Aroostook State Farm Saturday. The seed development work on the Savage field will take nearly three days. We have a rather limited number of available barrels and crates, hence it will be necessary to select seed and take weights in the field.

(P. M. Lombard).

Spooner, Wisconsin Notes. October 1, 1921.

Favorable weather during the week, and the able assistance rendered by Professor Milward, and the Station employees made it possible to complete the work of harvesting, sorting and weighing the seed potato development plots at the Spooner Branch Station Friday forenoon. The afternoon of Friday was devoted to harvesting the seedling potatoes and the strains of Rural and Irish Cobbler grown for the purpose of studying the progeny of long and round typed tubers of these varieties. Measurements were made of the tubers from these several lots on Saturday. This completed the work at the Station and permitted the writer to leave that evening.

The general results obtained from the Spooner trials were quite similar to those previously noted of the Grand Rapids work.

The 14 lots of Green Mountain potatoes varied in yield from 86.4 to 133.4 bushels per acre; the 5 lots of Irish Cobblers from 143.4 to 177.6; the 20 lots of Triumphs from 79.3 to 170.1 bushels; and the Early Ohio, of which there were 6 lots, from 141.3 to 179.3 bushels per acre. The superior yields from the Early varieties were due to the later planting of these lots and their consequent escape from the injurious effect of heat and drought.

Pittsburg, Pennsylvania. October 4, 1921.

The forenoon of Tuesday, October 4 was spent in the produce yards in Pittsburg inspecting the quality of the potato stock offered for sale at that point. Quite a few carloads of Maine Irish Cobblers were noted. As a rule all of this stock ran rather large but for the most part it was in good condition and was being sold to the retailer at from $3.15 to $3.50 per 150 lb. sack. All shipments had evidently arrived in bulk and were being sold in bulk or in sacks according to the wishes of the purchaser. New York State Rurals were also noted. These were also in good condition and were being sold at from $3.25 to $3.50 per 150 lb. sack.

Washington Notes. October 7, 1921.

Since arrival in Washington Wednesday morning, October 5, the writer's time has been largely occupied in catching up with the accumulated mail; in other words in the clearing of his desk.

The Daily Market Report of the Bureau of Markets indicates an unusually heavy movement of the potato crop. For example the carlot shipments October 3 were 1342, on the 4th they aggregated 1395, and on the 5th 1581. Such heavy shipments have depressed the selling price of the stock to a point much below what the actual marketable crop justifies.

(Wm. Stuart).

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WEEKLY POTATO BULLETIN

of the

OFFICE OF HORTICULTURAL & POMOLOGICAL INVESTIGATIONS

OCT 15 1921

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Greeley, Colorado Notes. For the week ending October 1, 1921.

During the past week the days have been quite warm and the nights very cool. On the night of September 29 the mercury dropped to 26 degrees above zero.

Most of the potato growers in this district will start digging their late crop this week, although some will wait eight or ten days longer. It is expected that the yields in many cases will not come up to expectations, while in others they will be very satisfactory. It is a little too early yet to state just how the yield per acre will compare with that of former years.

At the Station the hand digging was completed last week and on Saturday, October 1, work was begun on the field experiments. It is hoped that the digging may be finished the latter part of this week.

The growers who object to the State grading law held a meeting last Tuesday. They claim that the law as it now reads works injury to both grower and consumer. A committee was appointed to meet with the State Board of Agriculture; as a body they are to hear protests against the law.

Potatoes sold last week for $1.15 to $1.25 per hundred. Today's quotation is $1.15 for No. 1's.

(W. C. Edmundson).

Greeley, Colorado Notes. For the week ending October 8, 1921.

During the past week the weather has been quite warm, with a few very cool nights. There was a light rainfall on Thursday evening, October 6.

The work of digging the potatoes at the Station was finished the latter part of the week. While the tubers have not been weighed or graded it is known that the yield was very satisfactory and that the quality is excellent. This week some lots of potatoes that were planted on different types of soil in this district are being dug.

Potato digging is at its height now and by the end of next week most of the crop should be harvested.

The price of potatoes advanced somewhat the last of the week and buyers were paying $1.40 per hundred for No. 1 stock.

(W. C. Edmundson).

Presque Isle, Maine Notes. For the week ending October 8, 1921.

We finished harvesting the seed development plat Wednesday, October 5. Although the actual yields for the different strains of Cobblers, Mountains and Rurals have not been computed, observations per row indicated that the yields run from 144 to 156 barrels per acre.

The following week will be devoted to the storing of the seed stock and disposing of a part of surplus material.

The market is still rather weak ranging from $2.00 to $2.25 per barrel.

(P. M. Lombard).

Washington Notes. October 14, 1921.

The weather continues fair. The past three days have been rather cool with slight frost Wednesday night in low places and a somewhat heavier one Thursday night causing more or less injury to the plants in the experimental potato plot at Arlington Farm.

A letter from Superintendent Williams of the Spooner Branch Station advises that cold weather has prevailed there ever since the completion of harvesting operations at that point.

An invitation was received today to make a Department exhibit at the Duluth International Potato Show October 26-28. It will not be possible to make an exhibit or even attend the meeting.

The October 1 report of the Crop Estimates Division of the Bureau of Markets shows a substantial increase over the September 1 estimate. The present figures indicate a crop of 345,844,000 bushels. This is over 75,000,000 bushels less than the 1920 crop.

The Daily Market Report of the Bureau of Markets shows a daily average movement for the first three days of the week of 1584 cars.

(Wm. Stuart).

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OFFICE OF HORTICULTURAL & POMOLOGICAL INVESTIGATIONS

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Greeley, Colorado Notes. For the week ending October 15, 1921.

The weather continues almost ideal for potato harvest; the days are warm and the nights cool. The harvest, which is progressing rapidly, will be nearly over by the end of the week. In visiting potato fields it is found that in many cases the yields are much lower than had been anticipated.

On Thursday, the 13th, we finished digging the potatoes that were planted on different types of soil in the vicinity of Greeley. Pearls were used in this experiment; all lots are of the same strain, which was secured from a grower in Wisconsin.

The work of manuring next year's potato ground will be finished the first of this week. There is a good growth of alfalfa on the ground that is being manured and it is expected to crown the alfalfa at an early date.

The potato market was on the decline the latter part of last week. For the first few days growers were getting $1.60 to $1.65 a hundred, but later the price went down to $1.35. Today buyers are paying from $1.15 to $1.25 for No. 1's. There is little demand, and not much stock is coming in.

(W. C. Edmundson).

Madison, Wisconsin Notes. For the week ending October 15, 1921.

On the basis of Wisconsin inspection records four growers have been selected to send Triumph seed stock to the South for the cooperative seed trials in the South. This stock is now being boxed and will be shipped to southern points this fall.

Potato harvest will be finished in Wisconsin this week. The central belt has been delayed due to the immaturity of the stock. Harvest conditions have been excellent and stock will go into storage in much better condition than last year.

Local potato shows are now being held in Wisconsin counties in preparation for the State Show to be held jointly with the first Wisconsin Markets Exposition at Milwaukee, December 5 - 10, 1921.

(J. G. Milward).

Washington Notes. October 21, 1921.

The weather remains clear and cool but as yet this section has escaped a killing frost. A good rain is badly needed.

The plants in the Arlington Farm experimental plot are still quite green and despite the drought are making a very satisfactory crop.

Dr. C. F. Clark arrived here the morning of the 20th and has taken a few days leave. Mr. Lombard writes that he expects to complete his work at Presque Isle this week and will take a three weeks leave of absence on his way back to Washington.

Marketing conditions are still more or less unsatisfactory owing to continued heavy carlot shipments. According to the Daily Market Report the movement on Saturday the 15th was 2193 cars, Monday the 17th, 1683, 1653 on the 18th and 1502 on the 19th or an average for the four days of 1759 cars. This heavy movement indicates that the growers are disposing of a larger portion of the crop than usual from the field as harvested.

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OCT 2 9 1921

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Greeley, Colorado Notes. For the week ending October 22, 1921.

The weather of the past week and of the entire month has been exceptionally hot for this time of the year. Conditions have been excellent for harvesting crops.

The potato harvest is about over and the larger portion of the crop has been stored. During the past week the movement of potatoes was very light. Growers were paid $1.15 to $1.25 per hundred for No.1's.

We shall finish crowning the alfalfa today or tomorrow and this will about end our field work for this year. Some of the farmers in the vicinity have made their fourth cutting of alfalfa. The yield of hay is very light, however. It is believed that there will be a much smaller acreage of alfalfa next year because of the low price that is being paid for hay.

(W. C. Edmundson).

Washington Notes. October 28, 1921.

The weather continues fair. No frost injury has occurred thus far.

The shipment of potatoes from Aroostook Farm for seed and storage studies arrived this week and has been put in the artificially cooled storage rooms.

Dr. Clark and the writer have devoted three forenoons to the measurement of tubers produced from material planted for the purpose of studying the relative behavior of round and long type tubers. While the measurement of several thousand tubers is a rather tedious operation it will furnish the basis for determining to what extent tuber shape is normally transmitted from parent to offspring.

Prof. Corbett was confined to his home the forepart of this week as a result of a severe attack of laryngitis.

Daily Market Reports. The carlot movement this week has shown a slight falling off from that of last week. The average movement for the period of August 24 - 26 was 1445 cars.

Note. Following our usual custom this issue of the "Eye" will be the last of the season. The writer desires to take this opportunity to express his appreciation of assistance rendered by those who have contributed to its pages during the season and to venture the hope that when its publication is resumed the first of next April further aid will be received.

(Wm. Stuart).